

**CUMULATIVE (2020) WITH  
PROJECT WITH ALTERNATIVE 3  
CONDITIONS  
(ICU METHODOLOGY)**

Cumulative (2020) + ProjectTue Jan 6, 2009 12:22:31

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Scenario Report

Scenario: Cumulative (2020) + Project AM (Alt 3)

Command: Cumulative (2020) + Project AM (Alt 3)

Volume: Cumulative (2020) + Project (Alt 3 AM)

Geometry: General Plan Build-Out

Impact Fee: Default Impact Fee

Trip Generation: None

Trip Distribution: None

Paths: Default Path

Routes: Default Route

Configuration: Existing

Cumulative (2020) + ProjectTue Jan 6, 2009 12:22:31

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Impact Analysis Report  
Level Of Service

Intersection	Base		Future		Change in
	LOS	Del/ V/ Veh C	LOS	Del/ V/ Veh C	
# 5 Pacific Coast Hwy / 9th St	B	xxxxxx 0.627	B	xxxxxx 0.627	+ 0.000 V/C
# 6 Pacific Coast Hwy / 6th St	C	xxxxxx 0.788	C	xxxxxx 0.788	+ 0.000 V/C
# 7 Pacific Coast Hwy / Main St	C	xxxxxx 0.752	C	xxxxxx 0.752	+ 0.000 V/C
# 8 Pacific Coast Hwy / 1st St	E	xxxxxx 0.987	E	xxxxxx 0.987	+ 0.000 V/C
# 9 Pacific Coast Hwy / Huntington	B	xxxxxx 0.688	B	xxxxxx 0.688	+ 0.000 V/C
# 16 Main St / Adams Ave	A	xxxxxx 0.565	A	xxxxxx 0.565	+ 0.000 V/C
# 19 Main St / 6th St	A	xxxxxx 0.326	A	xxxxxx 0.326	+ 0.000 V/C
# 22 1st St / Orange Ave & Atlanta	A	xxxxxx 0.353	A	xxxxxx 0.353	+ 0.000 V/C
# 24 Beach Blvd / Pacific View Ave	A	xxxxxx 0.309	A	xxxxxx 0.309	+ 0.000 V/C



Cumulative (2020) + ProjectTue Jan 6, 2009 12:23:35

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Scenario Report

Scenario: Cumulative (2020) + Project PM (Alt 3)  
Command: Cumulative (2020) + Project PM (Alt 3)  
Volume: Cumulative (2020) + Project (Alt 3 PM)  
Geometry: General Plan Build-Out  
Impact Fee: Default Impact Fee  
Trip Generation: None  
Trip Distribution: None  
Paths: Default Path  
Routes: Default Route  
Configuration: Existing

Cumulative (2020) + ProjectTue Jan 6, 2009 12:23:36

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Impact Analysis Report  
Level Of Service

Intersection	Base Del/ V/ LOS Veh C	Future Del/ V/ LOS Veh C	Change in
# 5 Pacific Coast Hwy / 9th St	B xxxxxx 0.682	B xxxxxx 0.682	+ 0.000 V/C
# 6 Pacific Coast Hwy / 6th St	E xxxxxx 0.914	E xxxxxx 0.914	+ 0.000 V/C
# 7 Pacific Coast Hwy / Main St	E xxxxxx 0.917	E xxxxxx 0.917	+ 0.000 V/C
# 8 Pacific Coast Hwy / 1st St	F xxxxxx 1.061	F xxxxxx 1.061	+ 0.000 V/C
# 9 Pacific Coast Hwy / Huntington	C xxxxxx 0.765	C xxxxxx 0.765	+ 0.000 V/C
# 16 Main St / Adams Ave	C xxxxxx 0.778	C xxxxxx 0.778	+ 0.000 V/C
# 19 Main St / 6th St	A xxxxxx 0.465	A xxxxxx 0.465	+ 0.000 V/C
# 22 1st St / Orange Ave & Atlanta	A xxxxxx 0.499	A xxxxxx 0.499	+ 0.000 V/C
# 24 Beach Blvd / Pacific View Ave	A xxxxxx 0.373	A xxxxxx 0.373	+ 0.000 V/C

**CUMULATIVE (2020) WITH  
PROJECT WITH ALTERNATIVE 4  
CONDITIONS  
(HCM METHODOLOGY)**

Cumulative (2020) + ProjectWed Apr 8, 2009 13:40:01

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Huntington Beach Traffic Impact Analysis  
Cumulative (2020) + Project AM (Alt 4)  
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Scenario Report

Scenario: Cumulative (2020) + Project AM (Alt 4)  
  
Command: Cumulative (2020) + Project AM (Alt 4)  
Volume: Existing AM  
Geometry: Existing  
Impact Fee: Default Impact Fee  
Trip Generation: Approved with Project AM  
Trip Distribution: Project  
Paths: Default Path  
Routes: Default Route  
Configuration: Cumulative (2020) + Project (Alt 4)



Cumulative (2020) + ProjectWed Apr 8, 2009 13:40:02

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Huntington Beach Traffic Impact Analysis  
Cumulative (2020) + Project AM (Alt 4)

Impact Analysis Report  
Level Of Service

Intersection		Base Del/ LOS Veh	V/ C	Future Del/ LOS Veh	V/ C	Change in	
# 1	Pacific Coast Hwy / Warner Ave	C	28.4 0.762	C	29.0 0.791	+ 0.523	D/V
# 2	Pacific Coast Hwy / Seapoint A	B	15.3 0.597	B	15.0 0.627	-0.277	D/V
# 3	Pacific Coast Hwy / Goldenwest	C	20.8 0.626	C	22.0 0.683	+ 1.201	D/V
# 4	Pacific Coast Hwy / 17th St	A	6.5 0.524	A	6.3 0.570	-0.203	D/V
# 5	Pacific Coast Hwy / 9th St	A	2.4 0.524	A	2.4 0.570	-0.016	D/V
# 6	Pacific Coast Hwy / 6th St	B	16.1 0.527	B	19.8 0.584	+ 3.669	D/V
# 7	Pacific Coast Hwy / Main St	B	14.8 0.513	B	18.8 0.572	+ 4.046	D/V
# 8	Pacific Coast Hwy / 1st St	C	25.2 0.588	C	29.3 0.630	+ 4.171	D/V
# 9	Pacific Coast Hwy / Huntington	A	7.3 0.557	A	8.3 0.607	+ 0.904	D/V
# 10	Pacific Coast Hwy / Beach Blvd	B	19.5 0.693	C	20.8 0.735	+ 1.267	D/V
# 11	Pacific Coast Hwy / Newland S	B	10.7 0.510	B	10.2 0.539	-0.560	D/V
# 12	Pacific Coast Hwy / Magnolia S	B	13.0 0.535	B	12.4 0.563	-0.650	D/V
# 13	Pacific Coast Hwy / Brookhurst	C	23.1 0.654	C	22.6 0.682	-0.469	D/V
# 14	Main St / Yorktown Ave	C	25.4 0.335	C	26.1 0.366	+ 0.714	D/V
# 15	Main St / 17 th St	B	13.8 0.229	B	11.9 0.261	-1.855	D/V
# 16	Main St / Adams Ave	B	14.6 0.365	B	14.6 0.430	-0.043	D/V
# 17	Main St / Walnut Ave	A	7.9 0.188	A	9.1 0.292	+ 0.104	V/C
# 18	Main St / Olive Ave	A	8.3 0.258	A	9.1 0.313	+ 0.056	V/C
# 19	Main St / 6th St	B	14.3 0.139	B	13.5 0.247	-0.836	D/V
# 20	Lake St / 6th St	A	8.1 0.116	A	8.3 0.136	+ 0.021	V/C
# 21	Lake St / Orange Ave	A	9.4 0.323	B	11.5 0.473	+ 0.150	V/C
# 22	1st St / Orange Ave & Atlanta	B	19.1 0.259	B	19.7 0.304	+ 0.624	D/V
# 23	Beach Blvd / Atlanta Ave	C	21.2 0.305	C	22.8 0.372	+ 1.623	D/V
# 24	Beach Blvd / Pacific View Ave	A	7.4 0.217	A	9.9 0.284	+ 2.562	D/V

Cumulative (2020) + ProjectWed Apr 8, 2009 13:40:02

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Huntington Beach Traffic Impact Analysis  
Cumulative (2020) + Project AM (Alt 4)

Intersection	Base		Future		Change in
	Del/	V/	Del/	V/	
	LOS Veh	C	LOS Veh	C	

Cumulative (2020) + ProjectWed Apr 8, 2009 13:40:02

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Huntington Beach Traffic Impact Analysis  
Cumulative (2020) + Project AM (Alt 4)

Level Of Service Computation Report  
2000 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #1 Pacific Coast Hwy / Warner Ave  
\*\*\*\*\*

Cycle (sec): 120 Critical Vol./Cap.(X): 0.791  
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 29.0  
Optimal Cycle: 109 Level Of Service: C  
\*\*\*\*\*

Street Name:	Pacific Coast Hwy						Warner Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			Protected			Protected					
Rights:	Include			Include			Include			Ovl					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Lanes:	1	0	2	0	1	2	0	1	1	0	1	0	0	1	0

Volume Module:	Pacific Coast Hwy			Pacific Coast Hwy			Warner Ave			Warner Ave		
Base Vol:	30	1160	220	410	1150	40	20	190	30	290	50	600
Growth Adj:	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
Initial Bse:	34	1307	248	462	1296	45	23	214	34	327	56	676
Added Vol:	0	81	15	0	87	0	0	0	0	17	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	34	1388	263	462	1383	45	23	214	34	344	56	676
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	34	1388	263	462	1383	45	23	214	34	344	56	676
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	34	1388	263	462	1383	45	23	214	34	344	56	676
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	34	1388	263	462	1383	45	23	214	34	344	56	676

Saturation Flow Module:	Pacific Coast Hwy			Pacific Coast Hwy			Warner Ave			Warner Ave		
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	2.00	1.94	0.06	1.00	0.86	0.14	2.00	1.00	2.00
Final Sat.:	1700	3400	1700	3400	3293	107	1700	1468	232	3400	1700	3400

Capacity Analysis Module:	Pacific Coast Hwy			Pacific Coast Hwy			Warner Ave			Warner Ave		
Vol/Sat:	0.02	0.41	0.15	0.14	0.42	0.42	0.01	0.15	0.15	0.10	0.03	0.20
Crit Moves:	****			****			****			****		
Green/Cycle:	0.03	0.52	0.52	0.17	0.66	0.66	0.05	0.18	0.18	0.13	0.26	0.43
Volume/Cap:	0.64	0.79	0.30	0.79	0.64	0.64	0.24	0.79	0.79	0.79	0.13	0.46
Delay/Veh:	80.9	26.3	16.8	54.9	12.8	12.8	55.8	59.5	59.5	60.3	34.3	24.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	80.9	26.3	16.8	54.9	12.8	12.8	55.8	59.5	59.5	60.3	34.3	24.6
LOS by Move:	F	C	B	D	B	B	E	E	E	E	C	C
HCM2kAvgQ:	2	22	5	10	16	16	1	11	11	8	2	9

\*\*\*\*\*  
Note: Queue reported is the number of cars per lane.  
\*\*\*\*\*

Cumulative (2020) + ProjectWed Apr 8, 2009 13:40:02

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Huntington Beach Traffic Impact Analysis  
Cumulative (2020) + Project AM (Alt 4)

Level Of Service Computation Report  
2000 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #2 Pacific Coast Hwy / Seapoint Ave

\*\*\*\*\*

Cycle (sec): 120 Critical Vol./Cap.(X): 0.627  
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 15.0  
Optimal Cycle: 61 Level Of Service: B  
\*\*\*\*\*

Street Name:	Pacific Coast Hwy						Seapoint Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	0	1	1	0	0	1	0	0	0	0	1

Volume Module:	Pacific Coast Hwy			Pacific Coast Hwy			Seapoint Ave			Seapoint Ave		
Base Vol:	0	1110	30	80	1270	0	0	0	0	80	0	250
Growth Adj:	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
Initial Bse:	0	1251	34	90	1431	0	0	0	0	90	0	282
Added Vol:	0	96	6	0	103	0	0	0	0	6	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1347	40	90	1534	0	0	0	0	96	0	282
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1347	40	90	1534	0	0	0	0	96	0	282
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1347	40	90	1534	0	0	0	0	96	0	282
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1347	40	90	1534	0	0	0	0	96	0	282

Saturation Flow Module:	Pacific Coast Hwy			Pacific Coast Hwy			Seapoint Ave			Seapoint Ave		
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	1.94	0.06	1.00	2.00	0.00	0.00	0.00	0.00	2.00	0.00	1.00
Final Sat.:	0	3302	98	1700	3400	0	0	0	0	3400	0	1700

Capacity Analysis Module:	Pacific Coast Hwy			Pacific Coast Hwy			Seapoint Ave			Seapoint Ave		
Vol/Sat:	0.00	0.41	0.41	0.05	0.45	0.00	0.00	0.00	0.00	0.03	0.00	0.17
Crit Moves:	****			****						****		
Green/Cycle:	0.00	0.65	0.65	0.08	0.74	0.00	0.00	0.00	0.00	0.26	0.00	0.26
Volume/Cap:	0.00	0.63	0.63	0.63	0.61	0.00	0.00	0.00	0.00	0.11	0.00	0.63
Delay/Veh:	0.0	12.9	12.9	61.5	8.1	0.0	0.0	0.0	0.0	33.5	0.0	41.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	12.9	12.9	61.5	8.1	0.0	0.0	0.0	0.0	33.5	0.0	41.7
LOS by Move:	A	B	B	E	A	A	A	A	A	C	A	D
HCM2kAvgQ:	0	15	15	4	14	0	0	0	0	1	0	10

\*\*\*\*\*  
Note: Queue reported is the number of cars per lane.  
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Cumulative (2020) + ProjectWed Apr 8, 2009 13:40:02

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Huntington Beach Traffic Impact Analysis  
Cumulative (2020) + Project AM (Alt 4)

Level Of Service Computation Report  
2000 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #3 Pacific Coast Hwy / Goldenwest St  
\*\*\*\*\*

Cycle (sec): 120 Critical Vol./Cap.(X): 0.683  
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 22.0  
Optimal Cycle: 72 Level Of Service: C  
\*\*\*\*\*

Street Name:	Pacific Coast Hwy						Goldenwest St						
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected			Protected			Protected			Protected			
Rights:	Include			Include			Include			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Lanes:	1	0	2	0	1	0	0	0	0	0	1	0	0

Volume Module:	Pacific Coast Hwy			Pacific Coast Hwy			Goldenwest St			Goldenwest St		
Base Vol:	20	970	140	140	1250	0	0	0	0	300	0	140
Growth Adj:	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
Initial Bse:	23	1093	158	158	1409	0	0	0	0	338	0	158
Added Vol:	0	102	31	0	109	0	0	0	0	41	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	23	1195	189	158	1518	0	0	0	0	379	0	158
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	23	1195	189	158	1518	0	0	0	0	379	0	158
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	23	1195	189	158	1518	0	0	0	0	379	0	158
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	23	1195	189	158	1518	0	0	0	0	379	0	158

Saturation Flow Module:	Pacific Coast Hwy			Pacific Coast Hwy			Goldenwest St			Goldenwest St		
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	1700	3400	1700	1700	3400	0	0	0	0	1700	0	1700

Capacity Analysis Module:	Pacific Coast Hwy			Pacific Coast Hwy			Goldenwest St			Goldenwest St		
Vol/Sat:	0.01	0.35	0.11	0.09	0.45	0.00	0.00	0.00	0.00	0.22	0.00	0.09
Crit Moves:	****			****			****			****		
Green/Cycle:	0.02	0.53	0.53	0.14	0.65	0.00	0.00	0.00	0.00	0.33	0.00	0.33
Volume/Cap:	0.68	0.66	0.21	0.66	0.68	0.00	0.00	0.00	0.00	0.68	0.00	0.28
Delay/Veh:	104.0	21.1	14.9	55.5	13.9	0.0	0.0	0.0	0.0	38.5	0.0	30.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	104.0	21.1	14.9	55.5	13.9	0.0	0.0	0.0	0.0	38.5	0.0	30.3
LOS by Move:	F	C	B	E	B	A	A	A	A	D	A	C
HCM2kAvgQ:	2	16	4	7	18	0	0	0	0	13	0	4

\*\*\*\*\*  
Note: Queue reported is the number of cars per lane.  
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Cumulative (2020) + ProjectWed Apr 8, 2009 13:40:02

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Huntington Beach Traffic Impact Analysis  
Cumulative (2020) + Project AM (Alt 4)

Level Of Service Computation Report  
2000 HCM Operations Method (Future Volume Alternative)

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*****
Intersection #4 Pacific Coast Hwy / 17th St
*****
Cycle (sec):          120          Critical Vol./Cap.(X):          0.570
Loss Time (sec):      0 (Y+R=4.0 sec)  Average Delay (sec/veh):          6.3
Optimal Cycle:        53          Level Of Service:          A
*****
Street Name:          Pacific Coast Hwy          17th St
Approach:              North Bound          South Bound          East Bound          West Bound
Movement:              L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:               Protected          Protected          Protected          Protected
Rights:                Include          Include          Include          Include
Min. Green:            0  0  0          0  0  0          0  0  0          0  0  0
Lanes:                 0  0  2  0  1          1  0  2  0  0          0  0  0  0  0          1  0  0  0  1
-----|-----|-----|-----|
Volume Module:
Base Vol:              0 1010          30  60 1420          0  0  0  0          80  0  80
Growth Adj:            1.13 1.13  1.13  1.13 1.13  1.13  1.13 1.13  1.13  1.13 1.13  1.13
Initial Bse:           0 1138          34  68 1600          0  0  0  0          90  0  90
Added Vol:             0  133          2  0  150          0  0  0  0          4  0  0
PasserByVol:          0  0          0  0  0          0  0  0  0          0  0  0
Initial Fut:           0 1271          36  68 1750          0  0  0  0          94  0  90
User Adj:              1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:               1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:            0 1271          36  68 1750          0  0  0  0          94  0  90
Reduct Vol:            0  0          0  0  0          0  0  0  0          0  0  0
Reduced Vol:           0 1271          36  68 1750          0  0  0  0          94  0  90
PCE Adj:              1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:              1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:           0 1271          36  68 1750          0  0  0  0          94  0  90
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:              1700 1700  1700  1700 1700  1700  1700 1700  1700  1700 1700  1700
Adjustment:            1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:                 0.00 2.00  1.00  1.00 2.00  0.00  0.00 0.00  0.00  1.00 0.00  1.00
Final Sat.:            0 3400  1700  1700 3400          0  0  0  0          1700  0  1700
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:               0.00 0.37  0.02  0.04 0.51  0.00  0.00 0.00  0.00  0.06 0.00  0.05
Crit Moves:           ****          ****          ****
Green/Cycle:           0.00 0.82  0.82  0.09 0.90  0.00  0.00 0.00  0.00  0.10 0.00  0.10
Volume/Cap:           0.00 0.46  0.03  0.46 0.57  0.00  0.00 0.00  0.00  0.57 0.00  0.55
Delay/Veh:             0.0  3.4  2.1  54.4  1.4  0.0  0.0 0.0  0.0  56.5  0.0  55.4
User DelAdj:           1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:            0.0  3.4  2.1  54.4  1.4  0.0  0.0 0.0  0.0  56.5  0.0  55.4
LOS by Move:           A  A  A  D  A  A  A  A  A  E  A  E
HCM2kAvgQ:             0  7  0  3  7  0  0  0  0  4  0  4
*****
Note: Queue reported is the number of cars per lane.
*****

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Cumulative (2020) + ProjectWed Apr 8, 2009 13:40:02

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Huntington Beach Traffic Impact Analysis  
Cumulative (2020) + Project AM (Alt 4)

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #5 Pacific Coast Hwy / 9th St

\*\*\*\*\*

Cycle (sec): 120 Critical Vol./Cap.(X): 0.570  
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 2.4  
Optimal Cycle: 53 Level Of Service: A

\*\*\*\*\*

Street Name:	Pacific Coast Hwy						9th St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	0	2	0	1		1	0	2	0	0	

Volume Module:	Pacific Coast Hwy			Pacific Coast Hwy			9th St			9th St		
Base Vol:	0	1050	10	20	1500	0	0	0	0	40	0	20
Growth Adj:	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
Initial Bse:	0	1183	11	23	1690	0	0	0	0	45	0	23
Added Vol:	0	135	1	0	154	0	0	0	0	2	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1318	12	23	1844	0	0	0	0	47	0	23
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1318	12	23	1844	0	0	0	0	47	0	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1318	12	23	1844	0	0	0	0	47	0	23
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1318	12	23	1844	0	0	0	0	47	0	23

Saturation Flow Module:	Pacific Coast Hwy			Pacific Coast Hwy			9th St			9th St		
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	1.00	2.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	3400	1700	1700	3400	0	0	0	0	1700	0	1700

Capacity Analysis Module:	Pacific Coast Hwy			Pacific Coast Hwy			9th St			9th St		
Vol/Sat:	0.00	0.39	0.01	0.01	0.54	0.00	0.00	0.00	0.00	0.03	0.00	0.01
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.92	0.92	0.03	0.95	0.00	0.00	0.00	0.00	0.05	0.00	0.05
Volume/Cap:	0.00	0.42	0.01	0.42	0.57	0.00	0.00	0.00	0.00	0.57	0.00	0.27
Delay/Veh:	0.0	0.7	0.4	62.3	0.6	0.0	0.0	0.0	0.0	65.0	0.0	56.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.7	0.4	62.3	0.6	0.0	0.0	0.0	0.0	65.0	0.0	56.8
LOS by Move:	A	A	A	E	A	A	A	A	A	E	A	E
HCM2kAvgQ:	0	4	0	1	5	0	0	0	0	3	0	1

\*\*\*\*\*

Note: Queue reported is the number of cars per lane.

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Cumulative (2020) + ProjectWed Apr 8, 2009 13:40:02

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Huntington Beach Traffic Impact Analysis  
Cumulative (2020) + Project AM (Alt 4)

Level Of Service Computation Report  
2000 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #6 Pacific Coast Hwy / 6th St  
\*\*\*\*\*

Cycle (sec): 120 Critical Vol./Cap.(X): 0.584  
Loss Time (sec): 30 (Y+R=4.0 sec) Average Delay (sec/veh): 19.8  
Optimal Cycle: 85 Level Of Service: B  
\*\*\*\*\*

Street Name:	Pacific Coast Hwy						6th St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	2	1	0	2	0	0	1	0	0	1

Volume Module:	Pacific Coast Hwy NB			Pacific Coast Hwy SB			6th St EB			6th St WB		
Base Vol:	20	940	20	40	1490	30	30	20	20	30	20	50
Growth Adj:	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
Initial Bse:	23	1059	23	45	1679	34	34	23	23	34	23	56
Added Vol:	0	103	50	41	116	0	0	0	0	39	0	33
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	23	1162	73	86	1795	34	34	23	23	73	23	89
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	23	1162	73	86	1795	34	34	23	23	73	23	89
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	23	1162	73	86	1795	34	34	23	23	73	23	89
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	23	1162	73	86	1795	34	34	23	23	73	23	89

Saturation Flow Module:	Pacific Coast Hwy NB			Pacific Coast Hwy SB			6th St EB			6th St WB		
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.82	0.18	1.00	2.94	0.06	0.43	0.28	0.29	1.00	0.20	0.80
Final Sat.:	1700	4800	300	1700	5006	94	729	486	486	1700	342	1358

Capacity Analysis Module:	Pacific Coast Hwy NB			Pacific Coast Hwy SB			6th St EB			6th St WB		
Vol/Sat:	0.01	0.24	0.24	0.05	0.36	0.36	0.05	0.05	0.05	0.04	0.07	0.07
Crit Moves:	****			****			****			****		
Green/Cycle:	0.02	0.53	0.53	0.11	0.61	0.61	0.11	0.11	0.11	0.11	0.11	0.11
Volume/Cap:	0.58	0.46	0.46	0.46	0.58	0.58	0.41	0.41	0.41	0.38	0.58	0.58
Delay/Veh:	78.9	17.8	17.8	51.8	14.2	14.2	51.0	51.0	51.0	50.6	55.1	55.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	78.9	17.8	17.8	51.8	14.2	14.2	51.0	51.0	51.0	50.6	55.1	55.1
LOS by Move:	E	B	B	D	B	B	D	D	D	D	E	E
HCM2kAvgQ:	2	9	9	3	14	14	3	3	3	3	5	5

\*\*\*\*\*  
Note: Queue reported is the number of cars per lane.  
\*\*\*\*\*



Cumulative (2020) + ProjectWed Apr 8, 2009 13:40:02

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Huntington Beach Traffic Impact Analysis  
Cumulative (2020) + Project AM (Alt 4)

Level Of Service Computation Report  
2000 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #7 Pacific Coast Hwy / Main St

\*\*\*\*\*

Cycle (sec): 120 Critical Vol./Cap.(X): 0.572  
Loss Time (sec): 30 (Y+R=4.0 sec) Average Delay (sec/veh): 18.8  
Optimal Cycle: 84 Level Of Service: B

\*\*\*\*\*

Street Name:	Pacific Coast Hwy						Main St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	3	0	1	0	0	0	0	0	1	0

Volume Module:	Pacific Coast Hwy			Pacific Coast Hwy			Main St			Main St		
Base Vol:	10	910	60	40	1500	0	0	0	0	50	0	70
Growth Adj:	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
Initial Bse:	11	1025	68	45	1690	0	0	0	0	56	0	79
Added Vol:	0	116	33	39	116	0	0	0	0	32	0	37
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	11	1141	101	84	1806	0	0	0	0	88	0	116
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	11	1141	101	84	1806	0	0	0	0	88	0	116
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	11	1141	101	84	1806	0	0	0	0	88	0	116
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	11	1141	101	84	1806	0	0	0	0	88	0	116

Saturation Flow Module:	Pacific Coast Hwy			Pacific Coast Hwy			Main St			Main St		
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	3.00	1.00	1.00	3.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	1700	5100	1700	1700	5100	0	0	0	0	1700	0	1700

Capacity Analysis Module:	Pacific Coast Hwy			Pacific Coast Hwy			Main St			Main St		
Vol/Sat:	0.01	0.22	0.06	0.05	0.35	0.00	0.00	0.00	0.00	0.05	0.00	0.07
Crit Moves:	****			****						****		
Green/Cycle:	0.01	0.52	0.52	0.11	0.62	0.00	0.00	0.00	0.00	0.12	0.00	0.12
Volume/Cap:	0.57	0.43	0.11	0.43	0.57	0.00	0.00	0.00	0.00	0.44	0.00	0.57
Delay/Veh:	93.7	18.2	15.0	51.1	13.7	0.0	0.0	0.0	0.0	50.6	0.0	53.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	93.7	18.2	15.0	51.1	13.7	0.0	0.0	0.0	0.0	50.6	0.0	53.9
LOS by Move:	F	B	B	D	B	A	A	A	A	D	A	D
HCM2kAvgQ:	1	9	2	3	13	0	0	0	0	3	0	5

\*\*\*\*\*

Note: Queue reported is the number of cars per lane.

\*\*\*\*\*

Cumulative (2020) + ProjectWed Apr 8, 2009 13:40:02

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Huntington Beach Traffic Impact Analysis  
Cumulative (2020) + Project AM (Alt 4)

Level Of Service Computation Report  
2000 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #8 Pacific Coast Hwy / 1st St  
\*\*\*\*\*

Cycle (sec): 120 Critical Vol./Cap. (X): 0.630  
Loss Time (sec): 30 (Y+R=4.0 sec) Average Delay (sec/veh): 29.3  
Optimal Cycle: 91 Level Of Service: C  
\*\*\*\*\*

Street Name:	Pacific Coast Hwy						1st St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	2	1	0	2	1	1	0	1	1	0

Volume Module:	Pacific Coast Hwy North			Pacific Coast Hwy South			1st St East			1st St West		
Base Vol:	40	800	50	40	1380	60	70	40	30	100	80	110
Growth Adj:	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
Initial Bse:	45	901	56	45	1555	68	79	45	34	113	90	124
Added Vol:	0	84	73	76	71	0	0	0	0	60	0	66
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	45	985	129	121	1626	68	79	45	34	173	90	190
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	45	985	129	121	1626	68	79	45	34	173	90	190
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	45	985	129	121	1626	68	79	45	34	173	90	190
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	45	985	129	121	1626	68	79	45	34	173	90	190

Saturation Flow Module:	Pacific Coast Hwy North			Pacific Coast Hwy South			1st St East			1st St West		
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.65	0.35	1.00	2.88	0.12	1.27	0.73	1.00	1.31	0.69	2.00
Final Sat.:	1700	4508	592	1700	4896	204	2164	1236	1700	2234	1166	3400

Capacity Analysis Module:	Pacific Coast Hwy North			Pacific Coast Hwy South			1st St East			1st St West		
Vol/Sat:	0.03	0.22	0.22	0.07	0.33	0.33	0.04	0.04	0.02	0.08	0.08	0.06
Crit Moves:	****			****			****			****		
Green/Cycle:	0.04	0.43	0.43	0.14	0.53	0.53	0.06	0.06	0.06	0.12	0.12	0.12
Volume/Cap:	0.63	0.51	0.51	0.51	0.63	0.63	0.63	0.63	0.34	0.63	0.63	0.46
Delay/Veh:	73.2	25.2	25.2	49.6	20.6	20.6	61.7	61.7	56.4	53.1	53.1	49.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	73.2	25.2	25.2	49.6	20.6	20.6	61.7	61.7	56.4	53.1	53.1	49.7
LOS by Move:	E	C	C	D	C	C	E	E	E	D	D	D
HCM2kAvgQ:	3	10	10	5	15	15	3	3	2	6	6	4

Note: Queue reported is the number of cars per lane.

Cumulative (2020) + ProjectWed Apr 8, 2009 13:40:02

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Huntington Beach Traffic Impact Analysis  
Cumulative (2020) + Project AM (Alt 4)

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

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Intersection #9 Pacific Coast Hwy / Huntington St

\*\*\*\*\*

Cycle (sec): 120 Critical Vol./Cap.(X): 0.607  
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 8.3  
Optimal Cycle: 47 Level Of Service: A  
\*\*\*\*\*

Street Name:	Pacific Coast Hwy						Huntington St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	2	0	1	1	0	1	0	1	1	0

Volume Module:	Pacific Coast Hwy			Pacific Coast Hwy			Huntington St			Huntington St		
Base Vol:	50	830	60	30	1460	10	10	20	40	30	60	20
Growth Adj:	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
Initial Bse:	56	935	68	34	1645	11	11	23	45	34	68	23
Added Vol:	0	156	95	0	131	0	0	0	0	75	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	56	1091	163	34	1776	11	11	23	45	109	68	23
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	56	1091	163	34	1776	11	11	23	45	109	68	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	56	1091	163	34	1776	11	11	23	45	109	68	23
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	56	1091	163	34	1776	11	11	23	45	109	68	23

Saturation Flow Module:	Pacific Coast Hwy			Pacific Coast Hwy			Huntington St			Huntington St		
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	0.33	0.67	1.00	1.23	0.77	1.00
Final Sat.:	1700	3400	1700	1700	3400	1700	567	1133	1700	2097	1303	1700

Capacity Analysis Module:	Pacific Coast Hwy			Pacific Coast Hwy			Huntington St			Huntington St		
Vol/Sat:	0.03	0.32	0.10	0.02	0.52	0.01	0.02	0.02	0.03	0.05	0.05	0.01
Crit Moves:	****			****						****		
Green/Cycle:	0.05	0.86	0.86	0.05	0.86	0.86	0.09	0.09	0.09	0.09	0.09	0.09
Volume/Cap:	0.61	0.37	0.11	0.37	0.61	0.01	0.23	0.23	0.31	0.61	0.61	0.16
Delay/Veh:	66.5	1.8	1.3	57.4	2.8	1.2	51.6	51.6	52.3	56.6	56.6	51.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	66.5	1.8	1.3	57.4	2.8	1.2	51.6	51.6	52.3	56.6	56.6	51.4
LOS by Move:	E	A	A	E	A	A	D	D	D	E	E	D
HCM2kAvgQ:	3	4	1	2	10	0	1	1	2	4	4	1

Note: Queue reported is the number of cars per lane.

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Cumulative (2020) + ProjectWed Apr 8, 2009 13:40:02

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Huntington Beach Traffic Impact Analysis  
Cumulative (2020) + Project AM (Alt 4)

Level Of Service Computation Report  
2000 HCM Operations Method (Future Volume Alternative)

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Intersection #10 Pacific Coast Hwy / Beach Blvd

\*\*\*\*\*

Cycle (sec): 120 Critical Vol./Cap.(X): 0.735  
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 20.8  
Optimal Cycle: 86 Level Of Service: C

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Street Name:	Pacific Coast Hwy						Beach Blvd						
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected			Protected			Protected			Protected			
Rights:	Include			Include			Ignore			Ignore			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Lanes:	1	0	2	0	1	1	0	2	0	1	2	0	1

Volume Module:	Pacific Coast Hwy			Pacific Coast Hwy			Beach Blvd			Beach Blvd		
Base Vol:	20	860	220	100	1520	30	20	50	10	480	80	160
Growth Adj:	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
Initial Bse:	23	969	248	113	1713	34	23	56	11	541	90	180
Added Vol:	0	171	0	63	144	0	0	0	0	0	0	79
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	23	1140	248	176	1857	34	23	56	11	541	90	259
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Volume:	23	1140	248	176	1857	34	23	56	0	541	90	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	23	1140	248	176	1857	34	23	56	0	541	90	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
FinalVolume:	23	1140	248	176	1857	34	23	56	0	541	90	0

Saturation Flow Module:	Pacific Coast Hwy			Pacific Coast Hwy			Beach Blvd			Beach Blvd		
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00
Final Sat.:	1700	3400	1700	1700	3400	1700	1700	3400	1700	3400	1700	1700

Capacity Analysis Module:	Pacific Coast Hwy			Pacific Coast Hwy			Beach Blvd			Beach Blvd		
Vol/Sat:	0.01	0.34	0.15	0.10	0.55	0.02	0.01	0.02	0.00	0.16	0.05	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.02	0.58	0.58	0.18	0.74	0.74	0.05	0.02	0.00	0.22	0.19	0.00
Volume/Cap:	0.74	0.58	0.25	0.58	0.74	0.03	0.28	0.74	0.00	0.74	0.28	0.00
Delay/Veh:	121.4	16.2	12.4	47.8	9.9	4.1	57.0	88.8	0.0	47.7	41.9	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	121.4	16.2	12.4	47.8	9.9	4.1	57.0	88.8	0.0	47.7	41.9	0.0
LOS by Move:	F	B	B	D	A	A	E	F	A	D	D	A
HCM2kAvgQ:	2	13	4	7	20	0	1	2	0	11	3	0

\*\*\*\*\*  
Note: Queue reported is the number of cars per lane.  
\*\*\*\*\*



Cumulative (2020) + ProjectWed Apr 8, 2009 13:40:02

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Huntington Beach Traffic Impact Analysis  
Cumulative (2020) + Project AM (Alt 4)

Level Of Service Computation Report  
2000 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #11 Pacific Coast Hwy / Newland St  
\*\*\*\*\*

Cycle (sec): 120 Critical Vol./Cap.(X): 0.539  
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 10.2  
Optimal Cycle: 49 Level Of Service: B  
\*\*\*\*\*

Street Name:	Pacific Coast Hwy						Newland St								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			Split Phase			Split Phase					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Lanes:	1	0	3	0	1	1	0	3	0	1	0	1	0	1	0

Volume Module:	Pacific Coast Hwy			Pacific Coast Hwy			Newland St			Newland St		
Base Vol:	0	930	30	60	1800	0	10	10	0	160	0	110
Growth Adj:	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
Initial Bse:	0	1048	34	68	2028	0	11	11	0	180	0	124
Added Vol:	0	171	0	0	144	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1219	34	68	2172	0	11	11	0	180	0	124
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1219	34	68	2172	0	11	11	0	180	0	124
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1219	34	68	2172	0	11	11	0	180	0	124
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1219	34	68	2172	0	11	11	0	180	0	124

Saturation Flow Module:	Pacific Coast Hwy			Pacific Coast Hwy			Newland St			Newland St		
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00
Final Sat.:	1700	5100	1700	1700	5100	1700	1700	1700	0	1700	0	1700

Capacity Analysis Module:	Pacific Coast Hwy			Pacific Coast Hwy			Newland St			Newland St		
Vol/Sat:	0.00	0.24	0.02	0.04	0.43	0.00	0.01	0.01	0.00	0.11	0.00	0.07
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.68	0.68	0.11	0.79	0.00	0.01	0.01	0.00	0.20	0.00	0.20
Volume/Cap:	0.00	0.35	0.03	0.35	0.54	0.00	0.54	0.54	0.00	0.54	0.00	0.37
Delay/Veh:	0.0	8.2	6.4	50.3	4.7	0.0	72.2	72.2	0.0	45.0	0.0	42.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	8.2	6.4	50.3	4.7	0.0	72.2	72.2	0.0	45.0	0.0	42.4
LOS by Move:	A	A	A	D	A	A	E	E	A	D	A	D
HCM2kAvgQ:	0	6	0	3	10	0	1	1	0	7	0	4

\*\*\*\*\*  
Note: Queue reported is the number of cars per lane.  
\*\*\*\*\*

Cumulative (2020) + ProjectWed Apr 8, 2009 13:40:02

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Huntington Beach Traffic Impact Analysis  
Cumulative (2020) + Project AM (Alt 4)

Level Of Service Computation Report  
2000 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #12 Pacific Coast Hwy / Magnolia St  
\*\*\*\*\*

Cycle (sec): 120 Critical Vol./Cap.(X): 0.563  
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 12.4  
Optimal Cycle: 52 Level Of Service: B  
\*\*\*\*\*

Street Name:	Pacific Coast Hwy						Magnolia St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	3	0	1	0	1	0	0	1	0	0

Volume Module:	Pacific Coast Hwy			Pacific Coast Hwy			Magnolia St			Magnolia St		
Base Vol:	20	840	50	80	1850	30	10	20	10	150	20	140
Growth Adj:	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
Initial Bse:	23	947	56	90	2085	34	11	23	11	169	23	158
Added Vol:	0	171	0	0	144	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	23	1118	56	90	2229	34	11	23	11	169	23	158
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	23	1118	56	90	2229	34	11	23	11	169	23	158
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	23	1118	56	90	2229	34	11	23	11	169	23	158
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	23	1118	56	90	2229	34	11	23	11	169	23	158

Saturation Flow Module:	Pacific Coast Hwy			Pacific Coast Hwy			Magnolia St			Magnolia St		
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00	1.00	0.67	0.33	1.76	0.24	1.00
Final Sat.:	1700	5100	1700	1700	5100	1700	1700	1133	567	3000	400	1700

Capacity Analysis Module:	Pacific Coast Hwy			Pacific Coast Hwy			Magnolia St			Magnolia St		
Vol/Sat:	0.01	0.22	0.03	0.05	0.44	0.02	0.01	0.02	0.02	0.06	0.06	0.09
Crit Moves:	****			****			****			****		
Green/Cycle:	0.02	0.64	0.64	0.16	0.78	0.78	0.04	0.04	0.04	0.16	0.16	0.16
Volume/Cap:	0.56	0.34	0.05	0.34	0.56	0.03	0.19	0.56	0.56	0.34	0.34	0.56
Delay/Veh:	75.1	9.8	7.9	45.9	5.5	3.1	57.7	68.7	68.7	44.7	44.7	48.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	75.1	9.8	7.9	45.9	5.5	3.1	57.7	68.7	68.7	44.7	44.7	48.7
LOS by Move:	E	A	A	D	A	A	E	E	E	D	D	D
HCM2kAvgQ:	2	6	1	3	11	0	1	2	2	3	3	6

Note: Queue reported is the number of cars per lane.

Cumulative (2020) + ProjectWed Apr 8, 2009 13:40:02

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Huntington Beach Traffic Impact Analysis  
Cumulative (2020) + Project AM (Alt 4)

Level Of Service Computation Report  
2000 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #13 Pacific Coast Hwy / Brookhurst St  
\*\*\*\*\*

Cycle (sec): 120 Critical Vol./Cap.(X): 0.682  
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 22.6  
Optimal Cycle: 72 Level Of Service: C  
\*\*\*\*\*

Street Name:	Pacific Coast Hwy						Brookhurst St								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			Protected			Protected					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Lanes:	1	0	3	0	1	1	0	3	0	1	1	0	0	1	0

Volume Module:	Pacific Coast Hwy						Brookhurst St					
Base Vol:	10	750	210	150	1880	0	10	10	10	660	10	150
Growth Adj:	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
Initial Bse:	11	845	237	169	2118	0	11	11	11	744	11	169
Added Vol:	0	171	0	0	144	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	11	1016	237	169	2262	0	11	11	11	744	11	169
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	11	1016	237	169	2262	0	11	11	11	744	11	169
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	11	1016	237	169	2262	0	11	11	11	744	11	169
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	11	1016	237	169	2262	0	11	11	11	744	11	169

Saturation Flow Module:	Pacific Coast Hwy						Brookhurst St					
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00	1.00	0.50	0.50	2.00	1.00	1.00
Final Sat.:	1700	5100	1700	1700	5100	1700	1700	850	850	3400	1700	1700

Capacity Analysis Module:	Pacific Coast Hwy						Brookhurst St					
Vol/Sat:	0.01	0.20	0.14	0.10	0.44	0.00	0.01	0.01	0.01	0.22	0.01	0.10
Crit Moves:	****			****			****			****		
Green/Cycle:	0.01	0.44	0.44	0.22	0.65	0.00	0.02	0.02	0.02	0.32	0.32	0.32
Volume/Cap:	0.68	0.45	0.32	0.45	0.68	0.00	0.31	0.68	0.68	0.68	0.02	0.31
Delay/Veh:	136.8	23.6	22.1	41.4	13.8	0.0	62.8	104	103.9	37.2	28.0	31.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	136.8	23.6	22.1	41.4	13.8	0.0	62.8	104	103.9	37.2	28.0	31.2
LOS by Move:	F	C	C	D	B	A	E	F	F	D	C	C
HCM2kAvgQ:	1	9	6	6	18	0	1	2	2	13	0	5

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Note: Queue reported is the number of cars per lane.  
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Cumulative (2020) + ProjectWed Apr 8, 2009 13:40:02

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Huntington Beach Traffic Impact Analysis  
Cumulative (2020) + Project AM (Alt 4)

Level Of Service Computation Report  
2000 HCM Operations Method (Future Volume Alternative)

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Intersection #14 Main St / Yorktown Ave

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.366  
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 26.1  
Optimal Cycle: 36 Level Of Service: C

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Street Name:	Main St						Yorktown Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	2	0	2	1	1	0	2	1	0	2

Volume Module:	Main St NB			Main St SB			Yorktown Ave EB			Yorktown Ave WB		
Base Vol:	110	360	30	110	330	40	60	340	140	40	340	90
Growth Adj:	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
Initial Bse:	124	406	34	124	372	45	68	383	158	45	383	101
Added Vol:	6	59	28	0	66	0	0	0	7	36	2	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	130	465	62	124	438	45	68	383	165	81	385	101
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	130	465	62	124	438	45	68	383	165	81	385	101
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	130	465	62	124	438	45	68	383	165	81	385	101
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	130	465	62	124	438	45	68	383	165	81	385	101

Saturation Flow Module:	Main St NB			Main St SB			Yorktown Ave EB			Yorktown Ave WB		
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	3400	1700	3400	3400	1700	1700	3400	1700	1700	3400	1700

Capacity Analysis Module:	Main St NB			Main St SB			Yorktown Ave EB			Yorktown Ave WB		
Vol/Sat:	0.08	0.14	0.04	0.04	0.13	0.03	0.04	0.11	0.10	0.05	0.11	0.06
Crit Moves:	****			****			****			****		
Green/Cycle:	0.21	0.44	0.44	0.12	0.35	0.35	0.11	0.31	0.31	0.13	0.32	0.32
Volume/Cap:	0.37	0.31	0.08	0.31	0.37	0.08	0.35	0.37	0.31	0.37	0.35	0.18
Delay/Veh:	34.5	18.1	16.1	40.8	24.3	21.6	42.0	27.2	26.8	40.7	25.9	24.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	34.5	18.1	16.1	40.8	24.3	21.6	42.0	27.2	26.8	40.7	25.9	24.4
LOS by Move:	C	B	B	D	C	C	D	C	C	D	C	C
HCM2kAvgQ:	4	5	1	2	5	1	2	5	4	3	5	2

\*\*\*\*\*

Note: Queue reported is the number of cars per lane.

\*\*\*\*\*



Cumulative (2020) + ProjectWed Apr 8, 2009 13:40:02

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Huntington Beach Traffic Impact Analysis  
Cumulative (2020) + Project AM (Alt 4)

Level Of Service Computation Report  
2000 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #15 Main St / 17 th St  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.261  
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 11.9  
Optimal Cycle: 19 Level Of Service: B  
\*\*\*\*\*

Street Name:	Main St						17th St											
Approach:	North Bound			South Bound			East Bound			West Bound								
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R			
Control:	Permitted						Permitted						Permitted					
Rights:	Include						Include						Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Lanes:	1	0	2	0	1	1	0	0	1	1	1	1	0	0	0			

Volume Module:	Main St						17th St					
Base Vol:	0	290	20	0	350	160	170	10	0	0	0	0
Growth Adj:	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
Initial Bse:	0	327	23	0	394	180	192	11	0	0	0	0
Added Vol:	0	93	0	0	109	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	420	23	0	503	180	192	11	0	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	420	23	0	503	180	192	11	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	420	23	0	503	180	192	11	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	420	23	0	503	180	192	11	0	0	0	0

Saturation Flow Module:	Main St						17th St					
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	0.00	2.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00
Final Sat.:	1700	3400	1700	0	3400	1700	1700	1700	0	1700	0	0

Capacity Analysis Module:	Main St						17th St					
Vol/Sat:	0.00	0.12	0.01	0.00	0.15	0.11	0.11	0.01	0.00	0.00	0.00	0.00
Crit Moves:	****						****					
Green/Cycle:	0.00	0.57	0.57	0.00	0.57	0.57	0.43	0.43	0.00	0.00	0.00	0.00
Volume/Cap:	0.00	0.22	0.02	0.00	0.26	0.19	0.26	0.02	0.00	0.00	0.00	0.00
Delay/Veh:	0.0	10.7	9.5	0.0	11.0	10.5	18.4	16.2	0.0	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	10.7	9.5	0.0	11.0	10.5	18.4	16.2	0.0	0.0	0.0	0.0
LOS by Move:	A	B	A	A	B	B	B	B	A	A	A	A
HCM2kAvgQ:	0	3	0	0	4	3	4	0	0	0	0	0

\*\*\*\*\*  
Note: Queue reported is the number of cars per lane.  
\*\*\*\*\*

Cumulative (2020) + ProjectWed Apr 8, 2009 13:40:02

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Huntington Beach Traffic Impact Analysis  
Cumulative (2020) + Project AM (Alt 4)

Level Of Service Computation Report  
2000 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #16 Main St / Adams Ave  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.430  
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 14.6  
Optimal Cycle: 25 Level Of Service: B  
\*\*\*\*\*

Street Name:	Main St						Adams Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Permitted			Permitted			Permitted			Permitted					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Lanes:	1	0	1	0	1	1	0	1	0	1	0	1	0	0	1

Volume Module:	Main St NB			Main St SB			Adams Ave EB			Adams Ave WB		
Base Vol:	20	300	100	50	280	30	10	230	10	60	190	30
Growth Adj:	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
Initial Bse:	23	338	113	56	316	34	11	259	11	68	214	34
Added Vol:	0	93	16	0	109	0	0	0	0	19	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	23	431	129	56	425	34	11	259	11	87	214	34
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	23	431	129	56	425	34	11	259	11	87	214	34
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	23	431	129	56	425	34	11	259	11	87	214	34
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	23	431	129	56	425	34	11	259	11	87	214	34

Saturation Flow Module:	Main St NB			Main St SB			Adams Ave EB			Adams Ave WB		
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	0.04	0.96	1.00	0.29	0.71	1.00
Final Sat.:	1700	1700	1700	1700	1700	1700	71	1629	1700	490	1210	1700

Capacity Analysis Module:	Main St NB			Main St SB			Adams Ave EB			Adams Ave WB		
Vol/Sat:	0.01	0.25	0.08	0.03	0.25	0.02	0.16	0.16	0.01	0.18	0.18	0.02
Crit Moves:	****									****		
Green/Cycle:	0.59	0.59	0.59	0.59	0.59	0.59	0.41	0.41	0.41	0.41	0.41	0.41
Volume/Cap:	0.02	0.43	0.13	0.06	0.42	0.03	0.39	0.39	0.02	0.43	0.43	0.05
Delay/Veh:	8.6	11.6	9.2	8.8	11.5	8.6	21.0	21.0	17.5	21.5	21.5	17.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	8.6	11.6	9.2	8.8	11.5	8.6	21.0	21.0	17.5	21.5	21.5	17.7
LOS by Move:	A	B	A	A	B	A	C	C	B	C	C	B
HCM2kAvgQ:	0	7	2	1	7	0	6	6	0	7	7	1

\*\*\*\*\*  
Note: Queue reported is the number of cars per lane.  
\*\*\*\*\*

Cumulative (2020) + ProjectWed Apr 8, 2009 13:40:02

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Huntington Beach Traffic Impact Analysis  
Cumulative (2020) + Project AM (Alt 4)

Level Of Service Computation Report  
2000 HCM 4-Way Stop Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #17 Main St / Walnut Ave  
\*\*\*\*\*

Cycle (sec): 0 Critical Vol./Cap.(X): 0.292  
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 9.1  
Optimal Cycle: 0 Level Of Service: A  
\*\*\*\*\*

Street Name:	Main St						Walnut Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Lanes:	0	0	1	0	0	0	0	1	0	0	0	0	1	0	0

Volume Module:	Main St						Walnut Ave					
Base Vol:	10	70	20	30	90	20	10	20	10	10	10	30
Growth Adj:	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
Initial Bse:	11	79	23	34	101	23	11	23	11	11	11	34
Added Vol:	11	46	8	16	34	7	7	54	11	8	51	19
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	22	125	31	50	135	30	18	77	22	19	62	53
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	22	125	31	50	135	30	18	77	22	19	62	53
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	22	125	31	50	135	30	18	77	22	19	62	53
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	22	125	31	50	135	30	18	77	22	19	62	53

Saturation Flow Module:	Main St						Walnut Ave					
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.13	0.70	0.17	0.23	0.63	0.14	0.16	0.65	0.19	0.14	0.47	0.39
Final Sat.:	92	514	126	170	463	101	107	447	130	101	327	277

Capacity Analysis Module:	Main St						Walnut Ave					
Vol/Sat:	0.24	0.24	0.24	0.29	0.29	0.29	0.17	0.17	0.17	0.19	0.19	0.19
Crit Moves:	****			****			****			****		
Delay/Veh:	9.1	9.1	9.1	9.5	9.5	9.5	8.8	8.8	8.8	8.8	8.8	8.8
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.1	9.1	9.1	9.5	9.5	9.5	8.8	8.8	8.8	8.8	8.8	8.8
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:	9.1			9.5			8.8			8.8		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	9.1			9.5			8.8			8.8		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.3	0.3	0.3	0.4	0.4	0.4	0.2	0.2	0.2	0.2	0.2	0.2

Note: Queue reported is the number of cars per lane.

Cumulative (2020) + ProjectWed Apr 8, 2009 13:40:02

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Huntington Beach Traffic Impact Analysis  
Cumulative (2020) + Project AM (Alt 4)

Level Of Service Detailed Computation Report  
2000 HCM 4-Way Stop Method  
Future Volume Alternative

\*\*\*\*\*  
Intersection #17 Main St / Walnut Ave  
\*\*\*\*\*

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R

Time Period: 0.25 hour

HevVeh:	0%	0%	0%	0%
---------	----	----	----	----

Alpha Value: 0.01

GroupType:	1	1	1	1
P[C1]:	0.50	0.53	0.46	0.47
P[C2]:	0.19	0.16	0.10	0.09
P[C3]:	0.20	0.22	0.31	0.32
P[C4]:	0.10	0.09	0.12	0.11
P[C5]:	0.01	0.01	0.01	0.01
Padj[C1]:	0.009	0.009	0.011	0.011
Padj[C2]:	0.002	0.002	0.005	0.005
Padj[C3]:	-0.005	-0.005	-0.008	-0.008
Padj[C4]:	-0.006	-0.005	-0.007	-0.007
Padj[C5]:	-0.001	-0.001	-0.001	-0.001

Lane:	L1	L1	L1	L1
LaneType:	LEFTTHRURITE	LEFTTHRURITE	LEFTTHRURITE	LEFTTHRURITE
HeadwayAdj:	-0.078	-0.036	-0.083	-0.207
Volume:	178	215	117	134
Capacity:	731	735	683	705
DegOfUtil:	0.23	0.28	0.16	0.18
DepHeadway:	4.68	4.68	4.89	4.75
ServiceTime:	2.7	2.7	2.9	2.7
Delay:	9.1	9.5	8.8	8.8
Queue:	0.3	0.4	0.2	0.2

Approach:	North Bound	South Bound	East Bound	West Bound
ApproachDel:	9.1	9.5	8.8	8.8
Delay Adj:	1.00	1.00	1.00	1.00
ApprAdjDel:	9.1	9.5	8.8	8.8
LOS by Appr:	A	A	A	A
OverallDel:			9.1	
OverallLOS:			A	

Cumulative (2020) + ProjectWed Apr 8, 2009 13:40:02

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Huntington Beach Traffic Impact Analysis  
Cumulative (2020) + Project AM (Alt 4)

Level Of Service Computation Report  
2000 HCM 4-Way Stop Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #18 Main St / Olive Ave  
\*\*\*\*\*

Cycle (sec): 0 Critical Vol./Cap.(X): 0.313  
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 9.1  
Optimal Cycle: 0 Level Of Service: A  
\*\*\*\*\*

Street Name:	Main St						Olive Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Lanes:	0	0	1	0	0	0	0	1	0	0	0	0	1	0	0

Volume Module:	Main St			Main St			Olive Ave			Olive Ave		
Base Vol:	10	80	30	70	100	20	10	20	10	10	10	20
Growth Adj:	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
Initial Bse:	11	90	34	79	113	23	11	23	11	11	11	23
Added Vol:	14	4	7	6	5	7	7	56	14	8	58	7
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	25	94	41	85	118	30	18	79	25	19	69	30
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	25	94	41	85	118	30	18	79	25	19	69	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	25	94	41	85	118	30	18	79	25	19	69	30
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	25	94	41	85	118	30	18	79	25	19	69	30

Saturation Flow Module:	Main St			Main St			Olive Ave			Olive Ave		
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.16	0.59	0.25	0.36	0.51	0.13	0.15	0.64	0.21	0.16	0.59	0.25
Final Sat.:	116	433	188	271	375	94	103	444	143	113	405	173

Capacity Analysis Module:	Main St			Main St			Olive Ave			Olive Ave		
Vol/Sat:	0.22	0.22	0.22	0.31	0.31	0.31	0.18	0.18	0.18	0.17	0.17	0.17
Crit Moves:	****			****			****			****		
Delay/Veh:	8.8	8.8	8.8	9.7	9.7	9.7	8.8	8.8	8.8	8.7	8.7	8.7
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	8.8	8.8	8.8	9.7	9.7	9.7	8.8	8.8	8.8	8.7	8.7	8.7
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:	8.8			9.7			8.8			8.7		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	8.8			9.7			8.8			8.7		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.2	0.2	0.2	0.4	0.4	0.4	0.2	0.2	0.2	0.2	0.2	0.2

Note: Queue reported is the number of cars per lane.



Cumulative (2020) + ProjectWed Apr 8, 2009 13:40:02

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Huntington Beach Traffic Impact Analysis  
Cumulative (2020) + Project AM (Alt 4)

Level Of Service Detailed Computation Report  
2000 HCM 4-Way Stop Method  
Future Volume Alternative

\*\*\*\*\*

Intersection #18 Main St / Olive Ave

\*\*\*\*\*

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Time Period:	0.25 hour			
HevVeh:	0%	0%	0%	0%
Alpha Value:	0.01			

GroupType:	1	1	1	1
P[C1]:	0.49	0.56	0.47	0.46
P[C2]:	0.21	0.14	0.09	0.09
P[C3]:	0.19	0.21	0.32	0.32
P[C4]:	0.10	0.08	0.11	0.11
P[C5]:	0.01	0.01	0.01	0.01
Padj[C1]:	0.009	0.008	0.011	0.011
Padj[C2]:	0.002	0.002	0.005	0.005
Padj[C3]:	-0.005	-0.006	-0.008	-0.008
Padj[C4]:	-0.006	-0.005	-0.007	-0.007
Padj[C5]:	-0.001	-0.001	-0.001	-0.001

Lane:	L1	L1	L1	L1
LaneType:	LEFTTHRURITE	LEFTTHRURITE	LEFTTHRURITE	LEFTTHRURITE
HeadwayAdj:	-0.121	-0.003	-0.094	-0.117
Volume:	160	232	122	118
Capacity:	738	741	690	691
DegOfUtil:	0.21	0.30	0.16	0.16
DepHeadway:	4.63	4.66	4.85	4.84
ServiceTime:	2.6	2.7	2.9	2.8
Delay:	8.8	9.7	8.8	8.7
Queue:	0.2	0.4	0.2	0.2

Approach:	North Bound	South Bound	East Bound	West Bound
ApproachDel:	8.8	9.7	8.8	8.7
Delay Adj:	1.00	1.00	1.00	1.00
ApprAdjDel:	8.8	9.7	8.8	8.7
LOS by Appr:	A	A	A	A
OverallDel:		9.1		
OverallLOS:		A		

Cumulative (2020) + ProjectWed Apr 8, 2009 13:40:02

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Huntington Beach Traffic Impact Analysis  
Cumulative (2020) + Project AM (Alt 4)

Level Of Service Computation Report  
2000 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #19 Main St / 6th St  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap. (X): 0.247  
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 13.5  
Optimal Cycle: 19 Level Of Service: B  
\*\*\*\*\*

Street Name:	Main St						6th St								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Permitted			Permitted			Permitted			Permitted					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Lanes:	1	0	0	1	0	1	0	0	1	0	1	0	1	0	1

Volume Module:	Main St NB			Main St SB			6th St EB			6th St WB		
Base Vol:	0	80	30	10	130	30	40	40	10	50	50	10
Growth Adj:	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
Initial Bse:	0	90	34	11	146	34	45	45	11	56	56	11
Added Vol:	12	57	3	0	61	75	58	8	12	3	9	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	12	147	37	11	207	109	103	53	23	59	65	11
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	12	147	37	11	207	109	103	53	23	59	65	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	12	147	37	11	207	109	103	53	23	59	65	11
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	12	147	37	11	207	109	103	53	23	59	65	11

Saturation Flow Module:	Main St NB			Main St SB			6th St EB			6th St WB		
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.80	0.20	1.00	0.66	0.34	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1700	1360	340	1700	1115	585	1700	1700	1700	1700	1700	1700

Capacity Analysis Module:	Main St NB			Main St SB			6th St EB			6th St WB		
Vol/Sat:	0.01	0.11	0.11	0.01	0.19	0.19	0.06	0.03	0.01	0.03	0.04	0.01
Crit Moves:				****				****				
Green/Cycle:	0.75	0.75	0.75	0.75	0.75	0.75	0.25	0.25	0.25	0.25	0.25	0.25
Volume/Cap:	0.01	0.14	0.14	0.01	0.25	0.25	0.25	0.13	0.06	0.14	0.16	0.03
Delay/Veh:	3.0	3.4	3.4	3.0	3.8	3.8	30.6	29.5	28.9	29.6	29.8	28.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	3.0	3.4	3.4	3.0	3.8	3.8	30.6	29.5	28.9	29.6	29.8	28.7
LOS by Move:	A	A	A	A	A	A	C	C	C	C	C	C
HCM2kAvgQ:	0	2	2	0	3	3	3	1	1	1	2	0

\*\*\*\*\*  
Note: Queue reported is the number of cars per lane.  
\*\*\*\*\*

Cumulative (2020) + ProjectWed Apr 8, 2009 13:40:02

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Huntington Beach Traffic Impact Analysis  
Cumulative (2020) + Project AM (Alt 4)

Level Of Service Computation Report  
2000 HCM 4-Way Stop Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #20 Lake St / 6th St  
\*\*\*\*\*

Cycle (sec): 0 Critical Vol./Cap.(X): 0.136  
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 8.3  
Optimal Cycle: 0 Level Of Service: A  
\*\*\*\*\*

Street Name:	Lake St						6th St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	0	1	0	1	0	1	0	0	1	0

Volume Module:	Lake St			Lake St			6th St			6th St		
Base Vol:	0	20	0	40	0	50	40	30	0	0	70	10
Growth Adj:	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
Initial Bse:	0	23	0	45	0	56	45	34	0	0	79	11
Added Vol:	2	32	0	0	42	10	9	0	2	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2	55	0	45	42	66	54	34	2	0	79	11
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	2	55	0	45	42	66	54	34	2	0	79	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	55	0	45	42	66	54	34	2	0	79	11
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	2	55	0	45	42	66	54	34	2	0	79	11

Saturation Flow Module:	Lake St			Lake St			6th St			6th St		
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	0.00	1.00	1.00	1.00	0.62	0.38	1.00	0.00	1.00	1.00
Final Sat.:	618	678	0	619	678	781	397	248	785	0	682	784

Capacity Analysis Module:	Lake St			Lake St			6th St			6th St		
Vol/Sat:	0.00	0.08	xxxx	0.07	0.06	0.08	0.14	0.14	0.00	xxxx	0.12	0.01
Crit Moves:	****			****			****			****		
Delay/Veh:	8.3	8.2	0.0	8.8	8.2	7.5	8.9	8.9	7.1	0.0	8.4	7.2
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	8.3	8.2	0.0	8.8	8.2	7.5	8.9	8.9	7.1	0.0	8.4	7.2
LOS by Move:	A	A	*	A	A	A	A	A	A	*	A	A
ApproachDel:	8.2			8.1			8.9			8.3		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	8.2			8.1			8.9			8.3		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0

Note: Queue reported is the number of cars per lane.



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Huntington Beach Traffic Impact Analysis  
Cumulative (2020) + Project AM (Alt 4)

Level Of Service Detailed Computation Report  
2000 HCM 4-Way Stop Method  
Future Volume Alternative

\*\*\*\*\*

Intersection #20 Lake St / 6th St

\*\*\*\*\*

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Time Period:	0.25 hour			
HevVeh:	0%	0%	0%	0%
Alpha Value:	0.01			

GroupType:	5	6	5	5
P[C1]:	0.61	0.70	0.65	0.64
P[C2]:	0.15	0.06	0.09	0.10
P[C3]:	0.18	0.21	0.22	0.21
P[C4]:	0.06	0.03	0.04	0.05
P[C5]:	0.00	0.00	0.00	0.00
Padj[C1]:	0.007	0.006	0.007	0.007
Padj[C2]:	0.002	0.002	0.002	0.002
Padj[C3]:	-0.005	-0.006	-0.006	-0.006
Padj[C4]:	-0.003	-0.002	-0.003	-0.003
Padj[C5]:	-0.000	-0.000	-0.000	-0.000

Lanes:	L1	L2	L1	L2	L1	L2	L1	L2
LaneType:	LEFT	RTTHRU	LEFT	RITE	RITE	LTTHRU	RITE	LTTHRU
HeadwayAdj:	0.500	0.000	0.500	-0.700	-0.700	0.308	-0.700	0.000
Volume:	2	55	45	66	2	88	11	79
Capacity:	618	678	619	781	785	645	784	682
DegOfUtil:	0.00	0.08	0.07	0.08	0.00	0.13	0.01	0.11
DepHeadway:	5.61	5.11	5.63	4.43	4.39	5.40	4.40	5.10
ServiceTime:	3.3	2.8	3.3	2.1	2.1	3.1	2.1	2.8
Delay:	8.3	8.2	8.8	7.5	7.1	8.9	7.2	8.4
Queue:	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.1

Lane:	L3	L3	L3	L3
LaneType:	NOLANE	THRU	NOLANE	NOLANE
HeadwayAdj:	xx.xxx	0.000	xx.xxx	xx.xxx
Volume:	xxxxxx	42	xxxxxx	xxxxxx
Capacity:	xxxxxx	678	xxxxxx	xxxxxx
DegOfUtil:	x.xx	0.06	x.xx	x.xx
DepHeadway:	xx.xx	5.13	xx.xx	xx.xx
ServiceTime:	xx.x	2.8	xx.x	xx.x
Delay:	xxx.x	8.2	xxx.x	xxx.x
Queue:	xxx.x	0.1	xxx.x	xxx.x

Approach:	North Bound	South Bound	East Bound	West Bound
ApproachDel:	8.2	8.1	8.9	8.3
Delay Adj:	1.00	1.00	1.00	1.00

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Huntington Beach Traffic Impact Analysis  
Cumulative (2020) + Project AM (Alt 4)

ApprAdjDel:	8.2	8.1	8.9	8.3
LOS by Appr:	A	A	A	A
OverallDel:			8.3	
OverallLOS:			A	

Cumulative (2020) + ProjectWed Apr 8, 2009 13:40:02

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Huntington Beach Traffic Impact Analysis  
Cumulative (2020) + Project AM (Alt 4)

Level Of Service Computation Report  
2000 HCM 4-Way Stop Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #21 Lake St / Orange Ave  
\*\*\*\*\*

Cycle (sec): 0 Critical Vol./Cap.(X): 0.473  
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 11.5  
Optimal Cycle: 0 Level Of Service: B  
\*\*\*\*\*

Street Name:	Lake St						Orange Ave											
Approach:	North Bound			South Bound			East Bound			West Bound								
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R			
Control:	Stop Sign						Stop Sign						Stop Sign					
Rights:	Include						Include						Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Lanes:	0	0	1	0	0	0	0	0	1	0	0	0	0	0	1	0	0	

Volume Module:	Lake St						Orange Ave					
Base Vol:	10	20	10	40	60	10	10	180	20	30	160	30
Growth Adj:	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
Initial Bse:	11	23	11	45	68	11	11	203	23	34	180	34
Added Vol:	8	6	8	16	7	21	20	64	8	9	69	8
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	19	29	19	61	75	32	31	267	31	43	249	42
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	19	29	19	61	75	32	31	267	31	43	249	42
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	19	29	19	61	75	32	31	267	31	43	249	42
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	19	29	19	61	75	32	31	267	31	43	249	42

Saturation Flow Module:	Lake St						Orange Ave					
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.29	0.42	0.29	0.36	0.45	0.19	0.10	0.81	0.09	0.13	0.75	0.12
Final Sat.:	161	239	161	217	265	115	67	571	65	90	527	88

Capacity Analysis Module:	Lake St						Orange Ave					
Vol/Sat:	0.12	0.12	0.12	0.28	0.28	0.28	0.47	0.47	0.47	0.47	0.47	0.47
Crit Moves:	****			****			****			****		
Delay/Veh:	9.3	9.3	9.3	10.4	10.4	10.4	11.9	11.9	11.9	12.0	12.0	12.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.3	9.3	9.3	10.4	10.4	10.4	11.9	11.9	11.9	12.0	12.0	12.0
LOS by Move:	A	A	A	B	B	B	B	B	B	B	B	B
ApproachDel:	9.3			10.4			11.9			12.0		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	9.3			10.4			11.9			12.0		
LOS by Appr:	A			B			B			B		
AllWayAvgQ:	0.1	0.1	0.1	0.3	0.3	0.3	0.8	0.8	0.8	0.8	0.8	0.8

Note: Queue reported is the number of cars per lane.

Cumulative (2020) + ProjectWed Apr 8, 2009 13:40:02

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Huntington Beach Traffic Impact Analysis  
Cumulative (2020) + Project AM (Alt 4)

Level Of Service Detailed Computation Report  
2000 HCM 4-Way Stop Method  
Future Volume Alternative

\*\*\*\*\*

Intersection #21 Lake St / Orange Ave

\*\*\*\*\*

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Time Period:	0.25 hour			

HevVeh:	0%	0%	0%	0%
Alpha Value:	0.01			

GroupType:	1	1	1	1
P[C1]:	0.22	0.27	0.36	0.37
P[C2]:	0.08	0.03	0.30	0.30
P[C3]:	0.37	0.44	0.17	0.17
P[C4]:	0.28	0.24	0.15	0.15
P[C5]:	0.05	0.02	0.01	0.01
Padj[C1]:	0.019	0.017	0.012	0.011
Padj[C2]:	0.010	0.009	0.002	0.002
Padj[C3]:	-0.007	-0.011	-0.003	-0.003
Padj[C4]:	-0.016	-0.014	-0.009	-0.009
Padj[C5]:	-0.005	-0.002	-0.001	-0.001

Lane:	L1	L1	L1	L1
LaneType:	LEFTTHRURITE	LEFTTHRURITE	LEFTTHRURITE	LEFTTHRURITE
HeadwayAdj:	-0.115	-0.043	-0.037	-0.049
Volume:	67	168	329	334
Capacity:	561	597	703	706
DegOfUtil:	0.10	0.26	0.45	0.46
DepHeadway:	5.63	5.51	4.93	4.92
ServiceTime:	3.6	3.5	2.9	2.9
Delay:	9.3	10.4	11.9	12.0
Queue:	0.1	0.3	0.8	0.8

Approach:	North Bound	South Bound	East Bound	West Bound
ApproachDel:	9.3	10.4	11.9	12.0
Delay Adj:	1.00	1.00	1.00	1.00
ApprAdjDel:	9.3	10.4	11.9	12.0
LOS by Appr:	A	B	B	B
OverallDel:			11.5	
OverallLOS:			B	

Cumulative (2020) + ProjectWed Apr 8, 2009 13:40:02

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Huntington Beach Traffic Impact Analysis  
Cumulative (2020) + Project AM (Alt 4)

Level Of Service Computation Report  
2000 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #22 1st St / Orange Ave & Atlanta Ave  
\*\*\*\*\*  
Cycle (sec): 100 Critical Vol./Cap.(X): 0.304  
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 19.7  
Optimal Cycle: 27 Level Of Service: B  
\*\*\*\*\*  
Street Name: 1st St Orange Ave & Atlanta Ave  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
-----|-----|-----|-----|  
Control: Permitted Permitted Protected Protected  
Rights: Include Include Include Include  
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
Lanes: 0 1 0 0 1 0 1 0 0 0 1 0 1 0  
-----|-----|-----|-----|  
Volume Module:  
Base Vol: 40 0 90 10 10 0 0 130 30 220 150 0  
Growth Adj: 1.13 1.13 1.13 1.13 1.13 1.13 1.13 1.13 1.13 1.13 1.13 1.13  
Initial Bse: 45 0 101 11 11 0 0 146 34 248 169 0  
Added Vol: 27 0 13 0 0 0 0 52 36 21 59 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 72 0 114 11 11 0 0 198 70 269 228 0  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Volume: 72 0 114 11 11 0 0 198 70 269 228 0  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 72 0 114 11 11 0 0 198 70 269 228 0  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
FinalVolume: 72 0 114 11 11 0 0 198 70 269 228 0  
-----|-----|-----|-----|  
Saturation Flow Module:  
Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700  
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Lanes: 1.00 0.00 1.00 0.50 0.50 0.00 1.00 1.48 0.52 1.00 1.00 0.00  
Final Sat.: 1700 0 1700 850 850 0 1700 2515 885 1700 1700 0  
-----|-----|-----|-----|  
Capacity Analysis Module:  
Vol/Sat: 0.04 0.00 0.07 0.01 0.01 0.00 0.00 0.08 0.08 0.16 0.13 0.00  
Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\*  
Green/Cycle: 0.22 0.00 0.22 0.22 0.22 0.00 0.00 0.26 0.26 0.52 0.78 0.00  
Volume/Cap: 0.19 0.00 0.30 0.06 0.06 0.00 0.00 0.30 0.30 0.30 0.17 0.00  
Delay/Veh: 31.9 0.0 33.0 30.8 30.8 0.0 0.0 30.0 30.0 13.9 2.9 0.0  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 31.9 0.0 33.0 30.8 30.8 0.0 0.0 30.0 30.0 13.9 2.9 0.0  
LOS by Move: C A C C C A A C C B A A  
HCM2kAvgQ: 2 0 3 1 1 0 0 3 3 5 2 0  
\*\*\*\*\*  
Note: Queue reported is the number of cars per lane.  
\*\*\*\*\*

Cumulative (2020) + ProjectWed Apr 8, 2009 13:40:02

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Huntington Beach Traffic Impact Analysis  
Cumulative (2020) + Project AM (Alt 4)

Level Of Service Computation Report  
2000 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #23 Beach Blvd / Atlanta Ave  
\*\*\*\*\*

Cycle (sec): 120 Critical Vol./Cap. (X): 0.372  
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 22.8  
Optimal Cycle: 30 Level Of Service: C  
\*\*\*\*\*

Street Name:	Beach Blvd						Atlanta Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Permitted			Permitted			Protected			Protected					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Lanes:	0	1	2	1	0	1	0	2	1	0	1	0	2	0	1

Volume Module:	Beach Blvd NB			Beach Blvd SB			Atlanta Ave EB			Atlanta Ave WB		
Base Vol:	10	320	60	170	610	110	50	140	30	60	250	170
Growth Adj:	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
Initial Bse:	11	361	68	192	687	124	56	158	34	68	282	192
Added Vol:	0	110	12	0	151	37	51	58	0	15	68	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	11	471	80	192	838	161	107	216	34	83	350	192
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	11	471	80	192	838	161	107	216	34	83	350	192
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	11	471	80	192	838	161	107	216	34	83	350	192
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	11	471	80	192	838	161	107	216	34	83	350	192

Saturation Flow Module:	Beach Blvd NB			Beach Blvd SB			Atlanta Ave EB			Atlanta Ave WB		
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.08	3.35	0.57	1.00	2.52	0.48	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	136	5699	964	1700	4279	821	1700	3400	1700	1700	3400	1700

Capacity Analysis Module:	Beach Blvd NB			Beach Blvd SB			Atlanta Ave EB			Atlanta Ave WB		
Vol/Sat:	0.08	0.08	0.08	0.11	0.20	0.20	0.06	0.06	0.02	0.05	0.10	0.11
Crit Moves:				****				****				
Green/Cycle:	0.53	0.53	0.53	0.53	0.53	0.53	0.17	0.27	0.27	0.21	0.30	0.30
Volume/Cap:	0.16	0.16	0.16	0.21	0.37	0.37	0.37	0.24	0.07	0.24	0.34	0.37
Delay/Veh:	14.6	14.6	14.6	15.2	16.8	16.8	44.9	34.5	32.9	40.2	32.7	33.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	14.6	14.6	14.6	15.2	16.8	16.8	44.9	34.5	32.9	40.2	32.7	33.3
LOS by Move:	B	B	B	B	B	B	D	C	C	D	C	C
HCM2kAvgQ:	3	3	3	4	7	7	4	3	1	3	5	6

\*\*\*\*\*  
Note: Queue reported is the number of cars per lane.  
\*\*\*\*\*



Cumulative (2020) + ProjectWed Apr 8, 2009 13:40:02

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Huntington Beach Traffic Impact Analysis  
Cumulative (2020) + Project AM (Alt 4)

Level Of Service Computation Report  
2000 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #24 Beach Blvd / Pacific View Ave  
\*\*\*\*\*

Cycle (sec): 120 Critical Vol./Cap.(X): 0.284  
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 9.9  
Optimal Cycle: 32 Level Of Service: A  
\*\*\*\*\*

Street Name:	Beach Blvd						Pacific View Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	3	0	0	1	0	0	0	1	0	0

Volume Module:	Beach Blvd			Beach Blvd			Pacific View Ave			Pacific View Ave		
Base Vol:	30	350	0	0	680	60	50	0	30	0	0	0
Growth Adj:	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
Initial Bse:	34	394	0	0	766	68	56	0	34	0	0	0
Added Vol:	0	63	0	0	79	86	59	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	34	457	0	0	845	154	115	0	34	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	34	457	0	0	845	154	115	0	34	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	34	457	0	0	845	154	115	0	34	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	34	457	0	0	845	154	115	0	34	0	0	0

Saturation Flow Module:	Beach Blvd			Beach Blvd			Pacific View Ave			Pacific View Ave		
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	3.00	0.00	1.00	2.54	0.46	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1700	5100	0	1700	4316	784	1700	0	1700	0	0	0

Capacity Analysis Module:	Beach Blvd			Beach Blvd			Pacific View Ave			Pacific View Ave		
Vol/Sat:	0.02	0.09	0.00	0.00	0.20	0.20	0.07	0.00	0.02	0.00	0.00	0.00
Crit Moves:	****			****			****					
Green/Cycle:	0.07	0.76	0.00	0.00	0.69	0.69	0.24	0.00	0.24	0.00	0.00	0.00
Volume/Cap:	0.28	0.12	0.00	0.00	0.28	0.28	0.28	0.00	0.08	0.00	0.00	0.00
Delay/Veh:	54.2	3.8	0.0	0.0	7.2	7.2	37.6	0.0	35.5	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	54.2	3.8	0.0	0.0	7.2	7.2	37.6	0.0	35.5	0.0	0.0	0.0
LOS by Move:	D	A	A	A	A	A	D	A	D	A	A	A
HCM2kAvgQ:	1	1	0	0	5	5	4	0	1	0	0	0

\*\*\*\*\*  
Note: Queue reported is the number of cars per lane.  
\*\*\*\*\*



Cumulative (2020) + ProjectWed Apr 8, 2009 13:47:00

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Huntington Beach Traffic Impact Analysis  
Cumulative Conditions (Year 2020) with Project PM  
-----

Scenario Report

Scenario: Cumulative (2020) + Project PM (Alt 4)  
Command: Cumulative (2020) + Project PM (Alt 4)  
Volume: Existing PM  
Geometry: Existing  
Impact Fee: Default Impact Fee  
Trip Generation: Approved with Project PM  
Trip Distribution: Project  
Paths: Default Path  
Routes: Default Route  
Configuration: Cumulative (2020) + Project (Alt 4)

Cumulative (2020) + ProjectWed Apr 8, 2009 13:47:01

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Huntington Beach Traffic Impact Analysis  
Cumulative Conditions (Year 2020) with Project PM

Impact Analysis Report  
Level Of Service

Intersection		Base LOS	Del/ Veh	V/ C	Future LOS	Del/ Veh	V/ C	Change in	
# 1	Pacific Coast Hwy / Warner Ave	C	25.3	0.703	C	25.7	0.748	+ 0.392	D/V
# 2	Pacific Coast Hwy / Seapoint A	B	14.9	0.722	B	15.1	0.771	+ 0.185	D/V
# 3	Pacific Coast Hwy / Goldenwest	C	23.6	0.779	C	25.3	0.837	+ 1.688	D/V
# 4	Pacific Coast Hwy / 17th St	B	10.1	0.626	A	9.8	0.693	-0.267	D/V
# 5	Pacific Coast Hwy / 9th St	A	2.8	0.557	A	2.9	0.628	+ 0.090	D/V
# 6	Pacific Coast Hwy / 6th St	C	23.4	0.601	C	27.4	0.735	+ 4.042	D/V
# 7	Pacific Coast Hwy / Main St	C	20.8	0.548	C	26.4	0.697	+ 5.631	D/V
# 8	Pacific Coast Hwy / 1st St	C	26.3	0.645	D	35.4	0.836	+ 9.117	D/V
# 9	Pacific Coast Hwy / Huntington	A	8.6	0.593	A	9.8	0.663	+ 1.212	D/V
# 10	Pacific Coast Hwy / Beach Blvd	B	19.9	0.752	C	24.9	0.856	+ 5.010	D/V
# 11	Pacific Coast Hwy / Newland S	B	11.7	0.648	B	11.2	0.697	-0.479	D/V
# 12	Pacific Coast Hwy / Magnolia S	B	10.7	0.680	B	10.4	0.730	-0.313	D/V
# 13	Pacific Coast Hwy / Brookhurst	B	18.8	0.706	B	18.1	0.755	-0.628	D/V
# 14	Main St / Yorktown Ave	C	28.4	0.490	C	29.1	0.554	+ 0.766	D/V
# 15	Main St / 17 th St	B	11.3	0.292	A	9.6	0.341	-1.748	D/V
# 16	Main St / Adams Ave	B	17.3	0.583	B	18.9	0.700	+ 1.552	D/V
# 17	Main St / Walnut Ave	A	9.0	0.314	B	13.1	0.554	+ 0.240	V/C
# 18	Main St / Olive Ave	A	9.0	0.295	B	11.5	0.431	+ 0.135	V/C
# 19	Main St / 6th St	B	13.4	0.186	B	13.4	0.356	-0.082	D/V
# 20	Lake St / 6th St	A	9.5	0.262	B	10.9	0.396	+ 0.134	V/C
# 21	Lake St / Orange Ave	B	11.2	0.516	C	23.2	0.866	+ 0.350	V/C
# 22	1st St / Orange Ave & Atlanta	C	21.2	0.328	C	21.6	0.416	+ 0.409	D/V
# 23	Beach Blvd / Atlanta Ave	C	22.5	0.371	C	24.8	0.432	+ 2.378	D/V
# 24	Beach Blvd / Pacific View Ave	A	8.5	0.265	B	12.9	0.347	+ 4.449	D/V

Cumulative (2020) + ProjectWed Apr 8, 2009 13:47:01

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Huntington Beach Traffic Impact Analysis  
Cumulative Conditions (Year 2020) with Project PM

Intersection	Base		Future		Change in
	Del/	V/	Del/	V/	
	LOS Veh	C	LOS Veh	C	

Cumulative (2020) + ProjectWed Apr 8, 2009 13:47:01

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Huntington Beach Traffic Impact Analysis  
Cumulative Conditions (Year 2020) with Project PM

Level Of Service Computation Report  
2000 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #1 Pacific Coast Hwy / Warner Ave  
\*\*\*\*\*

Cycle (sec): 120 Critical Vol./Cap. (X): 0.748  
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 25.7  
Optimal Cycle: 91 Level Of Service: C  
\*\*\*\*\*

Street Name:	Pacific Coast Hwy						Warner Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	2	0	1	1	1	0	0	2	0	1

Volume Module:	Pacific Coast Hwy			Pacific Coast Hwy			Warner Ave			Warner Ave		
Base Vol:	20	1190	320	300	1150	30	30	110	40	330	70	550
Growth Adj:	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
Initial Bse:	23	1341	361	338	1296	34	34	124	45	372	79	620
Added Vol:	0	129	27	0	128	0	0	0	0	26	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	23	1470	388	338	1424	34	34	124	45	398	79	620
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	23	1470	388	338	1424	34	34	124	45	398	79	620
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	23	1470	388	338	1424	34	34	124	45	398	79	620
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	23	1470	388	338	1424	34	34	124	45	398	79	620

Saturation Flow Module:	Pacific Coast Hwy			Pacific Coast Hwy			Warner Ave			Warner Ave		
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	2.00	1.95	0.05	1.00	0.73	0.27	2.00	1.00	2.00
Final Sat.:	1700	3400	1700	3400	3321	79	1700	1247	453	3400	1700	3400

Capacity Analysis Module:	Pacific Coast Hwy			Pacific Coast Hwy			Warner Ave			Warner Ave		
Vol/Sat:	0.01	0.43	0.23	0.10	0.43	0.43	0.02	0.10	0.10	0.12	0.05	0.18
Crit Moves:	****			****			****			****		
Green/Cycle:	0.02	0.58	0.58	0.13	0.69	0.69	0.06	0.13	0.13	0.16	0.23	0.37
Volume/Cap:	0.62	0.75	0.39	0.75	0.62	0.62	0.36	0.75	0.75	0.75	0.20	0.50
Delay/Veh:	87.2	20.5	14.1	56.9	10.7	10.7	56.8	63.0	63.0	54.2	37.2	29.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	87.2	20.5	14.1	56.9	10.7	10.7	56.8	63.0	63.0	54.2	37.2	29.8
LOS by Move:	F	C	B	E	B	B	E	E	E	D	D	C
HCM2kAvgQ:	2	21	8	8	15	15	2	8	8	9	2	9

\*\*\*\*\*  
Note: Queue reported is the number of cars per lane.  
\*\*\*\*\*



Cumulative (2020) + ProjectWed Apr 8, 2009 13:47:01

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Huntington Beach Traffic Impact Analysis  
Cumulative Conditions (Year 2020) with Project PM

Level Of Service Computation Report  
2000 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #2 Pacific Coast Hwy / Seapoint Ave  
\*\*\*\*\*

Cycle (sec): 120 Critical Vol./Cap.(X): 0.771  
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 15.1  
Optimal Cycle: 100 Level Of Service: B  
\*\*\*\*\*

Street Name:	Pacific Coast Hwy						Seapoint Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	0	1	1	0	2	0	0	0	2	0	0

Volume Module:	Pacific Coast Hwy North Bound			Pacific Coast Hwy South Bound			Seapoint Ave East Bound			Seapoint Ave West Bound		
Base Vol:	0	1350	70	210	1370	0	0	0	0	40	0	170
Growth Adj:	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
Initial Bse:	0	1521	79	237	1544	0	0	0	0	45	0	192
Added Vol:	0	156	9	0	153	0	0	0	0	9	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1677	88	237	1697	0	0	0	0	54	0	192
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1677	88	237	1697	0	0	0	0	54	0	192
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1677	88	237	1697	0	0	0	0	54	0	192
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1677	88	237	1697	0	0	0	0	54	0	192

Saturation Flow Module:	Pacific Coast Hwy North Bound			Pacific Coast Hwy South Bound			Seapoint Ave East Bound			Seapoint Ave West Bound		
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	1.90	0.10	1.00	2.00	0.00	0.00	0.00	0.00	2.00	0.00	1.00
Final Sat.:	0	3231	169	1700	3400	0	0	0	0	3400	0	1700

Capacity Analysis Module:	Pacific Coast Hwy North Bound			Pacific Coast Hwy South Bound			Seapoint Ave East Bound			Seapoint Ave West Bound		
Vol/Sat:	0.00	0.52	0.52	0.14	0.50	0.00	0.00	0.00	0.00	0.02	0.00	0.11
Crit Moves:	****			****						****		
Green/Cycle:	0.00	0.67	0.67	0.18	0.85	0.00	0.00	0.00	0.00	0.15	0.00	0.15
Volume/Cap:	0.00	0.77	0.77	0.77	0.58	0.00	0.00	0.00	0.00	0.11	0.00	0.77
Delay/Veh:	0.0	15.0	15.0	58.2	2.9	0.0	0.0	0.0	0.0	44.5	0.0	63.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	15.0	15.0	58.2	2.9	0.0	0.0	0.0	0.0	44.5	0.0	63.1
LOS by Move:	A	B	B	E	A	A	A	A	A	D	A	E
HCM2kAvgQ:	0	23	23	10	10	0	0	0	0	1	0	9

\*\*\*\*\*  
Note: Queue reported is the number of cars per lane.  
\*\*\*\*\*

Cumulative (2020) + ProjectWed Apr 8, 2009 13:47:01

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Huntington Beach Traffic Impact Analysis  
Cumulative Conditions (Year 2020) with Project PM

Level Of Service Computation Report  
2000 HCM Operations Method (Future Volume Alternative)

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*****
Intersection #3 Pacific Coast Hwy / Goldenwest St
*****
Cycle (sec):          120          Critical Vol./Cap.(X):          0.837
Loss Time (sec):      0 (Y+R=4.0 sec)  Average Delay (sec/veh):          25.3
Optimal Cycle:        140          Level Of Service:          C
*****
Street Name:          Pacific Coast Hwy          Goldenwest St
Approach:              North Bound          South Bound          East Bound          West Bound
Movement:              L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:               Protected          Protected          Protected          Protected
Rights:                Include          Include          Include          Include
Min. Green:            0    0    0          0    0    0          0    0    0          0    0    0
Lanes:                 1    0    2    0    1          1    0    2    0    0          0    0    0    0    0          1    0    0    0    1
-----|-----|-----|-----|
Volume Module:
Base Vol:              10 1250    220    320 1060    0          0    0    0    0    190    0    230
Growth Adj:            1.13 1.13    1.13    1.13 1.13    1.13    1.13 1.13    1.13    1.13 1.13    1.13
Initial Bse:           11 1409    248    361 1194    0          0    0    0    0    214    0    259
Added Vol:              0    165    63          0    162    0          0    0    0    0    62    0    0
PasserByVol:           0    0    0          0    0    0          0    0    0    0    0    0    0
Initial Fut:           11 1574    311    361 1356    0          0    0    0    0    276    0    259
User Adj:              1.00 1.00    1.00    1.00 1.00    1.00    1.00 1.00    1.00    1.00 1.00    1.00
PHF Adj:               1.00 1.00    1.00    1.00 1.00    1.00    1.00 1.00    1.00    1.00 1.00    1.00
PHF Volume:            11 1574    311    361 1356    0          0    0    0    0    276    0    259
Reduct Vol:            0    0    0          0    0    0          0    0    0    0    0    0    0
Reduced Vol:           11 1574    311    361 1356    0          0    0    0    0    276    0    259
PCE Adj:               1.00 1.00    1.00    1.00 1.00    1.00    1.00 1.00    1.00    1.00 1.00    1.00
MLF Adj:               1.00 1.00    1.00    1.00 1.00    1.00    1.00 1.00    1.00    1.00 1.00    1.00
FinalVolume:           11 1574    311    361 1356    0          0    0    0    0    276    0    259
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:              1700 1700    1700    1700 1700    1700    1700 1700    1700    1700 1700    1700
Adjustment:            1.00 1.00    1.00    1.00 1.00    1.00    1.00 1.00    1.00    1.00 1.00    1.00
Lanes:                 1.00 2.00    1.00    1.00 2.00    0.00    0.00 0.00    0.00    1.00 0.00    1.00
Final Sat.:            1700 3400    1700    1700 3400    0          0    0    0    0    1700    0    1700
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:               0.01 0.46    0.18    0.21 0.40    0.00    0.00 0.00    0.00    0.16 0.00    0.15
Crit Moves:           ****          ****          ****
Green/Cycle:           0.01 0.55    0.55    0.25 0.79    0.00    0.00 0.00    0.00    0.19 0.00    0.19
Volume/Cap:            0.50 0.84    0.33    0.84 0.50    0.00    0.00 0.00    0.00    0.84 0.00    0.79
Delay/Veh:             75.8 25.8    14.9    55.9 4.4     0.0     0.0 0.0     0.0    63.4 0.0    57.8
User DelAdj:           1.00 1.00    1.00    1.00 1.00    1.00    1.00 1.00    1.00    1.00 1.00    1.00
AdjDel/Veh:            75.8 25.8    14.9    55.9 4.4     0.0     0.0 0.0     0.0    63.4 0.0    57.8
LOS by Move:           E    C    B          E    A    A          A    A    A          E    A    E
HCM2kAvgQ:             1    26    6          15    9    0          0    0    0          12    0    11
*****
Note: Queue reported is the number of cars per lane.
*****

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Huntington Beach Traffic Impact Analysis  
Cumulative Conditions (Year 2020) with Project PM

Level Of Service Computation Report  
2000 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #4 Pacific Coast Hwy / 17th St  
\*\*\*\*\*

Cycle (sec): 120 Critical Vol./Cap.(X): 0.693  
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 9.8  
Optimal Cycle: 74 Level Of Service: A  
\*\*\*\*\*

Street Name:	Pacific Coast Hwy						17th St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	0	2	0	0	2	0	0	0	0	0	1

Volume Module:	Pacific Coast Hwy			Pacific Coast Hwy			17th St			17th St		
Base Vol:	0	1390	70	160	1110	0	0	0	0	50	0	90
Growth Adj:	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
Initial Bse:	0	1566	79	180	1251	0	0	0	0	56	0	101
Added Vol:	0	228	8	0	225	0	0	0	0	6	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1794	87	180	1476	0	0	0	0	62	0	101
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1794	87	180	1476	0	0	0	0	62	0	101
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1794	87	180	1476	0	0	0	0	62	0	101
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1794	87	180	1476	0	0	0	0	62	0	101

Saturation Flow Module:	Pacific Coast Hwy			Pacific Coast Hwy			17th St			17th St		
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	1.00	2.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	3400	1700	1700	3400	0	0	0	0	1700	0	1700

Capacity Analysis Module:	Pacific Coast Hwy			Pacific Coast Hwy			17th St			17th St		
Vol/Sat:	0.00	0.53	0.05	0.11	0.43	0.00	0.00	0.00	0.00	0.04	0.00	0.06
Crit Moves:	****			****						****		
Green/Cycle:	0.00	0.76	0.76	0.15	0.91	0.00	0.00	0.00	0.00	0.09	0.00	0.09
Volume/Cap:	0.00	0.69	0.07	0.69	0.47	0.00	0.00	0.00	0.00	0.43	0.00	0.69
Delay/Veh:	0.0	8.1	3.6	56.0	0.9	0.0	0.0	0.0	0.0	54.0	0.0	66.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	8.1	3.6	56.0	0.9	0.0	0.0	0.0	0.0	54.0	0.0	66.7
LOS by Move:	A	A	A	E	A	A	A	A	A	D	A	E
HCM2kAvgQ:	0	17	1	8	5	0	0	0	0	3	0	5

\*\*\*\*\*  
Note: Queue reported is the number of cars per lane.  
\*\*\*\*\*

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Huntington Beach Traffic Impact Analysis  
Cumulative Conditions (Year 2020) with Project PM

Level Of Service Computation Report  
2000 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #5 Pacific Coast Hwy / 9th St  
\*\*\*\*\*

Cycle (sec): 120 Critical Vol./Cap.(X): 0.628  
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 2.9  
Optimal Cycle: 61 Level Of Service: A  
\*\*\*\*\*

Street Name:	Pacific Coast Hwy						9th St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	0	2	0	0	1	1	0	2	0	0	1

Volume Module:	Pacific Coast Hwy North Bound			Pacific Coast Hwy South Bound			9th St East Bound			9th St West Bound		
Base Vol:	0	1540	30	20	1150	0	0	0	0	50	0	20
Growth Adj:	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
Initial Bse:	0	1735	34	23	1296	0	0	0	0	56	0	23
Added Vol:	0	237	4	0	231	0	0	0	0	3	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1972	38	23	1527	0	0	0	0	59	0	23
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1972	38	23	1527	0	0	0	0	59	0	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1972	38	23	1527	0	0	0	0	59	0	23
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1972	38	23	1527	0	0	0	0	59	0	23

Saturation Flow Module:	Pacific Coast Hwy North Bound			Pacific Coast Hwy South Bound			9th St East Bound			9th St West Bound		
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	1.00	2.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	3400	1700	1700	3400	0	0	0	0	1700	0	1700

Capacity Analysis Module:	Pacific Coast Hwy North Bound			Pacific Coast Hwy South Bound			9th St East Bound			9th St West Bound		
Vol/Sat:	0.00	0.58	0.02	0.01	0.45	0.00	0.00	0.00	0.00	0.03	0.00	0.01
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.92	0.92	0.02	0.94	0.00	0.00	0.00	0.00	0.06	0.00	0.06
Volume/Cap:	0.00	0.63	0.02	0.63	0.48	0.00	0.00	0.00	0.00	0.63	0.00	0.24
Delay/Veh:	0.0	1.3	0.4	88.8	0.4	0.0	0.0	0.0	0.0	68.2	0.0	55.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	1.3	0.4	88.8	0.4	0.0	0.0	0.0	0.0	68.2	0.0	55.5
LOS by Move:	A	A	A	F	A	A	A	A	A	E	A	E
HCM2kAvgQ:	0	8	0	2	3	0	0	0	0	3	0	1

Note: Queue reported is the number of cars per lane.

Cumulative (2020) + ProjectWed Apr 8, 2009 13:47:01

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Huntington Beach Traffic Impact Analysis  
Cumulative Conditions (Year 2020) with Project PM

Level Of Service Computation Report  
2000 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #6 Pacific Coast Hwy / 6th St  
\*\*\*\*\*

Cycle (sec): 120 Critical Vol./Cap.(X): 0.735  
Loss Time (sec): 30 (Y+R=4.0 sec) Average Delay (sec/veh): 27.4  
Optimal Cycle: 107 Level Of Service: C  
\*\*\*\*\*

Street Name:	Pacific Coast Hwy						6th St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	2	1	0	2	0	0	1	0	0	1

Volume Module:	Pacific Coast Hwy			Pacific Coast Hwy			6th St			6th St		
Base Vol:	40	1360	50	80	1030	30	40	20	70	40	30	70
Growth Adj:	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
Initial Bse:	45	1532	56	90	1161	34	45	23	79	45	34	79
Added Vol:	0	183	75	61	173	0	0	0	0	70	0	58
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	45	1715	131	151	1334	34	45	23	79	115	34	137
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	45	1715	131	151	1334	34	45	23	79	115	34	137
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	45	1715	131	151	1334	34	45	23	79	115	34	137
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	45	1715	131	151	1334	34	45	23	79	115	34	137

Saturation Flow Module:	Pacific Coast Hwy			Pacific Coast Hwy			6th St			6th St		
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.79	0.21	1.00	2.93	0.07	0.31	0.15	0.54	1.00	0.20	0.80
Final Sat.:	1700	4737	363	1700	4974	126	523	262	915	1700	337	1363

Capacity Analysis Module:	Pacific Coast Hwy			Pacific Coast Hwy			6th St			6th St		
Vol/Sat:	0.03	0.36	0.36	0.09	0.27	0.27	0.09	0.09	0.09	0.07	0.10	0.10
Crit Moves:	****			****			****			****		
Green/Cycle:	0.06	0.49	0.49	0.12	0.56	0.56	0.14	0.14	0.14	0.14	0.14	0.14
Volume/Cap:	0.48	0.74	0.74	0.74	0.48	0.48	0.63	0.63	0.63	0.50	0.74	0.74
Delay/Veh:	58.9	25.4	25.4	63.8	16.1	16.1	54.5	54.5	54.5	49.6	61.3	61.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	58.9	25.4	25.4	63.8	16.1	16.1	54.5	54.5	54.5	49.6	61.3	61.3
LOS by Move:	E	C	C	E	B	B	D	D	D	D	E	E
HCM2kAvgQ:	2	19	19	7	10	10	6	6	6	4	8	8

\*\*\*\*\*  
Note: Queue reported is the number of cars per lane.  
\*\*\*\*\*



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Huntington Beach Traffic Impact Analysis  
Cumulative Conditions (Year 2020) with Project PM

Level Of Service Computation Report  
2000 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #7 Pacific Coast Hwy / Main St  
\*\*\*\*\*

Cycle (sec): 120 Critical Vol./Cap.(X): 0.697  
Loss Time (sec): 30 (Y+R=4.0 sec) Average Delay (sec/veh): 26.4  
Optimal Cycle: 101 Level Of Service: C  
\*\*\*\*\*

Street Name:	Pacific Coast Hwy						Main St								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			Protected			Protected					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Lanes:	1	0	3	0	1	1	0	3	0	0	0	0	0	0	1

Volume Module:	Pacific Coast Hwy			Pacific Coast Hwy			Main St			Main St		
Base Vol:	40	1320	130	90	1040	0	0	0	0	90	0	90
Growth Adj:	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
Initial Bse:	45	1487	146	101	1172	0	0	0	0	101	0	101
Added Vol:	0	194	52	61	183	0	0	0	0	54	0	64
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	45	1681	198	162	1355	0	0	0	0	155	0	165
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	45	1681	198	162	1355	0	0	0	0	155	0	165
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	45	1681	198	162	1355	0	0	0	0	155	0	165
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	45	1681	198	162	1355	0	0	0	0	155	0	165

Saturation Flow Module:	Pacific Coast Hwy			Pacific Coast Hwy			Main St			Main St		
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	3.00	1.00	1.00	3.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	1700	5100	1700	1700	5100	0	0	0	0	1700	0	1700

Capacity Analysis Module:	Pacific Coast Hwy			Pacific Coast Hwy			Main St			Main St		
Vol/Sat:	0.03	0.33	0.12	0.10	0.27	0.00	0.00	0.00	0.00	0.09	0.00	0.10
Crit Moves:	****			****						****		
Green/Cycle:	0.06	0.47	0.47	0.14	0.55	0.00	0.00	0.00	0.00	0.14	0.00	0.14
Volume/Cap:	0.48	0.70	0.25	0.70	0.48	0.00	0.00	0.00	0.00	0.65	0.00	0.70
Delay/Veh:	58.8	25.7	19.0	58.3	16.3	0.0	0.0	0.0	0.0	55.3	0.0	57.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	58.8	25.7	19.0	58.3	16.3	0.0	0.0	0.0	0.0	55.3	0.0	57.9
LOS by Move:	E	C	B	E	B	A	A	A	A	E	A	E
HCM2kAvgQ:	2	17	4	7	10	0	0	0	0	7	0	7

\*\*\*\*\*  
Note: Queue reported is the number of cars per lane.  
\*\*\*\*\*



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Huntington Beach Traffic Impact Analysis  
Cumulative Conditions (Year 2020) with Project PM

Level Of Service Computation Report  
2000 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #8 Pacific Coast Hwy / 1st St  
\*\*\*\*\*

Cycle (sec): 120 Critical Vol./Cap.(X): 0.836  
Loss Time (sec): 30 (Y+R=4.0 sec) Average Delay (sec/veh): 35.4  
Optimal Cycle: 129 Level Of Service: D  
\*\*\*\*\*

Street Name:	Pacific Coast Hwy				1st St				
Approach:	North Bound		South Bound		East Bound		West Bound		
Movement:	L	T	R	L	T	R	L	T	R
Control:	Protected		Protected		Split Phase		Split Phase		
Rights:	Include		Include		Include		Include		
Min. Green:	0	0	0	0	0	0	0	0	
Lanes:	1	0	2	1	0	1	1	0	0

Volume Module:	Pacific Coast Hwy		1st St	
Base Vol:	50	1430	70	100
Growth Adj:	1.13	1.13	1.13	1.13
Initial Bse:	56	1611	79	113
Added Vol:	0	126	110	112
PasserByVol:	0	0	0	0
Initial Fut:	56	1737	189	225
User Adj:	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00
PHF Volume:	56	1737	189	225
Reduct Vol:	0	0	0	0
Reduced Vol:	56	1737	189	225
PCE Adj:	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00
FinalVolume:	56	1737	189	225

Saturation Flow Module:	Pacific Coast Hwy		1st St	
Sat/Lane:	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00
Lanes:	1.00	2.71	0.29	1.00
Final Sat.:	1700	4600	500	1700

Capacity Analysis Module:	Pacific Coast Hwy		1st St	
Vol/Sat:	0.03	0.38	0.38	0.13
Crit Moves:	****	****	****	****
Green/Cycle:	0.07	0.45	0.45	0.16
Volume/Cap:	0.46	0.84	0.84	0.84
Delay/Veh:	56.3	31.8	31.8	68.9
User DelAdj:	1.00	1.00	1.00	1.00
AdjDel/Veh:	56.3	31.8	31.8	68.9
LOS by Move:	E	C	C	E
HCM2kAvgQ:	3	23	23	10

Note: Queue reported is the number of cars per lane.

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Huntington Beach Traffic Impact Analysis  
Cumulative Conditions (Year 2020) with Project PM

Level Of Service Computation Report  
2000 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #9 Pacific Coast Hwy / Huntington St  
\*\*\*\*\*

Cycle (sec): 120 Critical Vol./Cap.(X): 0.663  
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 9.8  
Optimal Cycle: 55 Level Of Service: A  
\*\*\*\*\*

Street Name:	Pacific Coast Hwy						Huntington St								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			Permitted			Permitted					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Lanes:	1	0	2	0	1	1	0	2	0	1	0	1	0	1	0

Volume Module:	Pacific Coast Hwy North Bound			Pacific Coast Hwy South Bound			Huntington St East Bound			Huntington St West Bound		
Base Vol:	40	1520	70	50	1060	10	40	50	80	10	30	30
Growth Adj:	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
Initial Bse:	45	1713	79	56	1194	11	45	56	90	11	34	34
Added Vol:	0	236	134	0	230	0	0	0	0	145	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	45	1949	213	56	1424	11	45	56	90	156	34	34
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	45	1949	213	56	1424	11	45	56	90	156	34	34
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	45	1949	213	56	1424	11	45	56	90	156	34	34
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	45	1949	213	56	1424	11	45	56	90	156	34	34

Saturation Flow Module:	Pacific Coast Hwy North Bound			Pacific Coast Hwy South Bound			Huntington St East Bound			Huntington St West Bound		
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	0.47	0.59	0.94	1.64	0.36	1.00
Final Sat.:	1700	3400	1700	1700	3400	1700	800	1000	1600	2795	605	1700

Capacity Analysis Module:	Pacific Coast Hwy North Bound			Pacific Coast Hwy South Bound			Huntington St East Bound			Huntington St West Bound		
Vol/Sat:	0.03	0.57	0.13	0.03	0.42	0.01	0.06	0.06	0.06	0.06	0.06	0.02
Crit Moves:	****			****			****					
Green/Cycle:	0.05	0.86	0.86	0.05	0.86	0.86	0.09	0.09	0.09	0.09	0.09	0.09
Volume/Cap:	0.49	0.66	0.14	0.66	0.49	0.01	0.66	0.66	0.66	0.66	0.66	0.23
Delay/Veh:	59.1	3.1	1.3	73.9	2.1	1.2	58.9	58.9	58.9	58.7	58.7	52.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	59.1	3.1	1.3	73.9	2.1	1.2	58.9	58.9	58.9	58.7	58.7	52.1
LOS by Move:	E	A	A	E	A	A	E	E	E	E	E	D
HCM2kAvgQ:	2	12	1	3	7	0	5	5	5	5	5	1

Note: Queue reported is the number of cars per lane.

Cumulative (2020) + ProjectWed Apr 8, 2009 13:47:01

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Huntington Beach Traffic Impact Analysis  
Cumulative Conditions (Year 2020) with Project PM

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #10 Pacific Coast Hwy / Beach Blvd

\*\*\*\*\*

Cycle (sec): 120 Critical Vol./Cap.(X): 0.856

Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 24.9

Optimal Cycle: 158 Level Of Service: C

\*\*\*\*\*

Street Name:	Pacific Coast Hwy						Beach Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	-	T	-	R		L	-	T	-	R	
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ignore			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	2	0	1		1	0	2	0	1	

Volume Module:

Base Vol:	40	1380	750	190	1010	30	20	50	30	340	50	110
Growth Adj:	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
Initial Bse:	45	1555	845	214	1138	34	23	56	34	383	56	124
Added Vol:	0	250	0	119	255	0	0	0	0	0	0	120
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	45	1805	845	333	1393	34	23	56	34	383	56	244
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Volume:	45	1805	845	333	1393	34	23	56	0	383	56	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	45	1805	845	333	1393	34	23	56	0	383	56	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
FinalVolume:	45	1805	845	333	1393	34	23	56	0	383	56	0

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00
Final Sat.:	1700	3400	1700	1700	3400	1700	1700	3400	1700	3400	1700	1700

Capacity Analysis Module:

Vol/Sat:	0.03	0.53	0.50	0.20	0.41	0.02	0.01	0.02	0.00	0.11	0.03	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.05	0.62	0.62	0.23	0.80	0.80	0.04	0.02	0.00	0.13	0.11	0.00
Volume/Cap:	0.51	0.86	0.80	0.86	0.51	0.02	0.31	0.86	0.00	0.86	0.31	0.00
Delay/Veh:	60.6	22.2	21.7	61.2	4.3	2.5	58.1	122	0.0	65.9	50.3	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	60.6	22.2	21.7	61.2	4.3	2.5	58.1	122	0.0	65.9	50.3	0.0
LOS by Move:	E	C	C	E	A	A	E	F	A	E	D	A
HCM2kAvgQ:	2	29	25	14	9	0	1	3	0	10	2	0

\*\*\*\*\*

Note: Queue reported is the number of cars per lane.

\*\*\*\*\*

Cumulative (2020) + ProjectWed Apr 8, 2009 13:47:01

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Huntington Beach Traffic Impact Analysis  
Cumulative Conditions (Year 2020) with Project PM

Level Of Service Computation Report  
2000 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #11 Pacific Coast Hwy / Newland St

\*\*\*\*\*

Cycle (sec): 120 Critical Vol./Cap.(X): 0.697

Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 11.2

Optimal Cycle: 75 Level Of Service: B

\*\*\*\*\*

Street Name: Pacific Coast Hwy

Newland St

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Split Phase Split Phase

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Lanes: 1 0 3 0 1 1 0 3 0 1 0 1 0 0 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 0 2080 270 150 1150 10 0 10 0 100 0 130

Growth Adj: 1.13 1.13 1.13 1.13 1.13 1.13 1.13 1.13 1.13 1.13 1.13 1.13

Initial Bse: 0 2344 304 169 1296 11 0 11 0 113 0 146

Added Vol: 0 250 0 0 255 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 0 2594 304 169 1551 11 0 11 0 113 0 146

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 0 2594 304 169 1551 11 0 11 0 113 0 146

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 0 2594 304 169 1551 11 0 11 0 113 0 146

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 0 2594 304 169 1551 11 0 11 0 113 0 146

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 3.00 1.00 1.00 3.00 1.00 0.00 2.00 0.00 1.00 0.00 1.00

Final Sat.: 1700 5100 1700 1700 5100 1700 0 3400 0 1700 0 1700

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.00 0.51 0.18 0.10 0.30 0.01 0.00 0.00 0.00 0.07 0.00 0.09

Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

Green/Cycle: 0.00 0.73 0.73 0.14 0.87 0.87 0.00 0.00 0.00 0.12 0.00 0.12

Volume/Cap: 0.00 0.70 0.25 0.70 0.35 0.01 0.00 0.70 0.00 0.54 0.00 0.70

Delay/Veh: 0.0 9.6 5.5 57.6 1.5 1.0 0.0 144 0.0 52.1 0.0 60.3

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 0.0 9.6 5.5 57.6 1.5 1.0 0.0 144 0.0 52.1 0.0 60.3

LOS by Move: A A A E A A A F A D A E

HCM2kAvgQ: 0 18 4 7 4 0 0 1 0 5 0 7

\*\*\*\*\*

Note: Queue reported is the number of cars per lane.

\*\*\*\*\*



Cumulative (2020) + ProjectWed Apr 8, 2009 13:47:02

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Huntington Beach Traffic Impact Analysis  
Cumulative Conditions (Year 2020) with Project PM

Level Of Service Computation Report  
2000 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #12 Pacific Coast Hwy / Magnolia St  
\*\*\*\*\*

Cycle (sec): 120 Critical Vol./Cap.(X): 0.730  
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 10.4  
Optimal Cycle: 84 Level Of Service: B  
\*\*\*\*\*

Street Name:	Pacific Coast Hwy						Magnolia St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	3	0	1	0	1	0	0	1	1	0

Volume Module:	Pacific Coast Hwy			Pacific Coast Hwy			Magnolia St			Magnolia St		
Base Vol:	30	2390	180	120	1070	30	20	30	10	70	30	70
Growth Adj:	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
Initial Bse:	34	2693	203	135	1206	34	23	34	11	79	34	79
Added Vol:	0	250	0	0	255	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	34	2943	203	135	1461	34	23	34	11	79	34	79
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	34	2943	203	135	1461	34	23	34	11	79	34	79
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	34	2943	203	135	1461	34	23	34	11	79	34	79
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	34	2943	203	135	1461	34	23	34	11	79	34	79

Saturation Flow Module:	Pacific Coast Hwy			Pacific Coast Hwy			Magnolia St			Magnolia St		
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00	1.00	0.75	0.25	1.40	0.60	1.00
Final Sat.:	1700	5100	1700	1700	5100	1700	1700	1275	425	2380	1020	1700

Capacity Analysis Module:	Pacific Coast Hwy			Pacific Coast Hwy			Magnolia St			Magnolia St		
Vol/Sat:	0.02	0.58	0.12	0.08	0.29	0.02	0.01	0.03	0.03	0.03	0.03	0.05
Crit Moves:	****			****			****			****		
Green/Cycle:	0.06	0.79	0.79	0.11	0.84	0.84	0.04	0.04	0.04	0.06	0.06	0.06
Volume/Cap:	0.34	0.73	0.15	0.73	0.34	0.02	0.36	0.73	0.73	0.52	0.52	0.73
Delay/Veh:	56.3	6.9	3.0	65.4	2.2	1.5	60.1	92.6	92.6	56.7	56.7	77.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	56.3	6.9	3.0	65.4	2.2	1.5	60.1	92.6	92.6	56.7	56.7	77.3
LOS by Move:	E	A	A	E	A	A	E	F	F	E	E	E
HCM2kAvgQ:	2	19	2	6	4	0	1	3	3	3	3	4

\*\*\*\*\*  
Note: Queue reported is the number of cars per lane.  
\*\*\*\*\*

Cumulative (2020) + ProjectWed Apr 8, 2009 13:47:02

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Huntington Beach Traffic Impact Analysis  
Cumulative Conditions (Year 2020) with Project PM

Level Of Service Computation Report  
2000 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #13 Pacific Coast Hwy / Brookhurst St  
\*\*\*\*\*

Cycle (sec): 120 Critical Vol./Cap.(X): 0.755  
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 18.1  
Optimal Cycle: 93 Level Of Service: B  
\*\*\*\*\*

Street Name:	Pacific Coast Hwy						Brookhurst St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	3	0	1	0	1	0	0	1	0	1

Volume Module:	Pacific Coast Hwy			Brookhurst St		
Base Vol:	20	2010	540	190	1240	10
Growth Adj:	1.13	1.13	1.13	1.13	1.13	1.13
Initial Bse:	23	2265	608	214	1397	11
Added Vol:	0	250	0	0	255	0
PasserByVol:	0	0	0	0	0	0
Initial Fut:	23	2515	608	214	1652	11
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	23	2515	608	214	1652	11
Reduct Vol:	0	0	0	0	0	0
Reduced Vol:	23	2515	608	214	1652	11
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	23	2515	608	214	1652	11

Saturation Flow Module:	Pacific Coast Hwy			Brookhurst St		
Sat/Lane:	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1700	5100	1700	1700	5100	1700

Capacity Analysis Module:	Pacific Coast Hwy			Brookhurst St		
Vol/Sat:	0.01	0.49	0.36	0.13	0.32	0.01
Crit Moves:	****			****		
Green/Cycle:	0.03	0.65	0.65	0.17	0.79	0.79
Volume/Cap:	0.41	0.75	0.55	0.75	0.41	0.01
Delay/Veh:	61.9	15.3	11.8	58.6	4.1	2.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	61.9	15.3	11.8	58.6	4.1	2.7
LOS by Move:	E	B	B	E	A	A
HCM2kAvgQ:	1	22	12	9	6	0

\*\*\*\*\*  
Note: Queue reported is the number of cars per lane.  
\*\*\*\*\*



Cumulative (2020) + ProjectWed Apr 8, 2009 13:47:02

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Huntington Beach Traffic Impact Analysis  
Cumulative Conditions (Year 2020) with Project PM

Level Of Service Computation Report  
2000 HCM Operations Method (Future Volume Alternative)

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*****
Intersection #14 Main St / Yorktown Ave
*****
Cycle (sec):          100          Critical Vol./Cap.(X):          0.554
Loss Time (sec):      0 (Y+R=4.0 sec)  Average Delay (sec/veh):          29.1
Optimal Cycle:        51          Level Of Service:          C
*****
Street Name:          Main St          Yorktown Ave
Approach:              North Bound      South Bound      East Bound      West Bound
Movement:              L - T - R        L - T - R        L - T - R        L - T - R
-----|-----|-----|-----|-----|
Control:               Protected        Protected        Protected        Protected
Rights:                Include          Include          Include          Include
Min. Green:            0    0    0        0    0    0        0    0    0        0    0    0
Lanes:                 1    0    2    0    1    2    0    2    0    1    1    0    2    0    1
-----|-----|-----|-----|-----|
Volume Module:
Base Vol:              190    390    50    230    460    90    70    460    150    80    500    160
Growth Adj:            1.13    1.13    1.13    1.13    1.13    1.13    1.13    1.13    1.13    1.13    1.13    1.13
Initial Bse:           214    439    56    259    518    101    79    518    169    90    563    180
Added Vol:             11    105    50    0    105    0    0    2    10    54    1    0
PasserByVol:           0    0    0    0    0    0    0    0    0    0    0    0
Initial Fut:           225    544    106    259    623    101    79    520    179    144    564    180
User Adj:              1.00    1.00    1.00    1.00    1.00    1.00    1.00    1.00    1.00    1.00    1.00    1.00
PHF Adj:               1.00    1.00    1.00    1.00    1.00    1.00    1.00    1.00    1.00    1.00    1.00    1.00
PHF Volume:            225    544    106    259    623    101    79    520    179    144    564    180
Reduct Vol:            0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:           225    544    106    259    623    101    79    520    179    144    564    180
PCE Adj:              1.00    1.00    1.00    1.00    1.00    1.00    1.00    1.00    1.00    1.00    1.00    1.00
MLF Adj:              1.00    1.00    1.00    1.00    1.00    1.00    1.00    1.00    1.00    1.00    1.00    1.00
FinalVolume:           225    544    106    259    623    101    79    520    179    144    564    180
-----|-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:              1700    1700    1700    1700    1700    1700    1700    1700    1700    1700    1700    1700
Adjustment:            1.00    1.00    1.00    1.00    1.00    1.00    1.00    1.00    1.00    1.00    1.00    1.00
Lanes:                 1.00    2.00    1.00    2.00    2.00    1.00    1.00    2.00    1.00    1.00    2.00    1.00
Final Sat.:            1700    3400    1700    3400    3400    1700    1700    3400    1700    1700    3400    1700
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:               0.13    0.16    0.06    0.08    0.18    0.06    0.05    0.15    0.11    0.08    0.17    0.11
Crit Moves:           ****          ****          ****          ****
Green/Cycle:           0.24    0.39    0.39    0.18    0.33    0.33    0.09    0.28    0.28    0.15    0.34    0.34
Volume/Cap:            0.55    0.41    0.16    0.41    0.55    0.18    0.49    0.55    0.38    0.55    0.49    0.32
Delay/Veh:             35.0    22.6    20.2    36.5    28.0    23.9    45.5    31.6    29.8    41.8    26.8    25.0
User DelAdj:           1.00    1.00    1.00    1.00    1.00    1.00    1.00    1.00    1.00    1.00    1.00    1.00
AdjDel/Veh:            35.0    22.6    20.2    36.5    28.0    23.9    45.5    31.6    29.8    41.8    26.8    25.0
LOS by Move:           D    C    C    D    C    C    D    C    C    D    C    C
HCM2kAvgQ:             7    6    2    4    8    2    3    7    5    5    7    4
*****
Note: Queue reported is the number of cars per lane.
*****

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Cumulative (2020) + ProjectWed Apr 8, 2009 13:47:02

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Huntington Beach Traffic Impact Analysis  
Cumulative Conditions (Year 2020) with Project PM

Level Of Service Computation Report  
2000 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #15 Main St / 17 th St  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.341  
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 9.6  
Optimal Cycle: 22 Level Of Service: A  
\*\*\*\*\*

Street Name:	Main St						17th St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	2	0	0	1	1	0	0	1	0	0

Volume Module:	Main St			Main St			17th St			17th St		
Base Vol:	10	430	10	0	520	180	180	10	0	0	0	0
Growth Adj:	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
Initial Bse:	11	485	11	0	586	203	203	11	0	0	0	0
Added Vol:	0	165	0	0	169	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	11	650	11	0	755	203	203	11	0	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	11	650	11	0	755	203	203	11	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	11	650	11	0	755	203	203	11	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	11	650	11	0	755	203	203	11	0	0	0	0

Saturation Flow Module:	Main St			Main St			17th St			17th St		
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	0.00	2.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00
Final Sat.:	1700	3400	1700	0	3400	1700	1700	1700	0	1700	0	0

Capacity Analysis Module:	Main St			Main St			17th St			17th St		
Vol/Sat:	0.01	0.19	0.01	0.00	0.22	0.12	0.12	0.01	0.00	0.00	0.00	0.00
Crit Moves:				****			****					
Green/Cycle:	0.65	0.65	0.65	0.00	0.65	0.65	0.35	0.35	0.00	0.00	0.00	0.00
Volume/Cap:	0.01	0.29	0.01	0.00	0.34	0.18	0.34	0.02	0.00	0.00	0.00	0.00
Delay/Veh:	6.2	7.6	6.2	0.0	7.9	7.0	24.4	21.3	0.0	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	6.2	7.6	6.2	0.0	7.9	7.0	24.4	21.3	0.0	0.0	0.0	0.0
LOS by Move:	A	A	A	A	A	A	C	C	A	A	A	A
HCM2kAvgQ:	0	4	0	0	5	2	5	0	0	0	0	0

\*\*\*\*\*  
Note: Queue reported is the number of cars per lane.  
\*\*\*\*\*

Cumulative (2020) + ProjectWed Apr 8, 2009 13:47:02

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Huntington Beach Traffic Impact Analysis  
Cumulative Conditions (Year 2020) with Project PM

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #16 Main St / Adams Ave

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.700

Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 18.9

Optimal Cycle: 48 Level Of Service: B

\*\*\*\*\*

Street Name:	Main St						Adams Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	-	T	-	R		L	-	T	-	R	
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	1	0	1		0	1	0	0	1	

Volume Module:

Base Vol:	10	370	90	80	420	10	0	160	10	180	280	60
Growth Adj:	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
Initial Bse:	11	417	101	90	473	11	0	180	11	203	316	68
Added Vol:	0	165	28	0	169	0	0	0	0	29	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	11	582	129	90	642	11	0	180	11	232	316	68
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	11	582	129	90	642	11	0	180	11	232	316	68
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	11	582	129	90	642	11	0	180	11	232	316	68
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	11	582	129	90	642	11	0	180	11	232	316	68

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.42	0.58	1.00
Final Sat.:	1700	1700	1700	1700	1700	1700	0	1700	1700	720	980	1700

Capacity Analysis Module:

Vol/Sat:	0.01	0.34	0.08	0.05	0.38	0.01	0.00	0.11	0.01	0.32	0.32	0.04
Crit Moves:	****						****					
Green/Cycle:	0.54	0.54	0.54	0.54	0.54	0.54	0.00	0.46	0.46	0.46	0.46	0.46
Volume/Cap:	0.01	0.63	0.14	0.10	0.70	0.01	0.00	0.23	0.01	0.70	0.70	0.09
Delay/Veh:	10.7	17.6	11.5	11.2	19.4	10.7	0.0	16.5	14.7	24.3	24.3	15.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.7	17.6	11.5	11.2	19.4	10.7	0.0	16.5	14.7	24.3	24.3	15.2
LOS by Move:	B	B	B	B	B	B	A	B	B	C	C	B
HCM2kAvgQ:	0	13	2	1	15	0	0	3	0	14	14	1

\*\*\*\*\*

Note: Queue reported is the number of cars per lane.

\*\*\*\*\*

Cumulative (2020) + ProjectWed Apr 8, 2009 13:47:02

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Huntington Beach Traffic Impact Analysis  
Cumulative Conditions (Year 2020) with Project PM

Level Of Service Computation Report  
2000 HCM 4-Way Stop Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #17 Main St / Walnut Ave

\*\*\*\*\*

Cycle (sec): 0 Critical Vol./Cap.(X): 0.554

Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 13.1

Optimal Cycle: 0 Level Of Service: B

\*\*\*\*\*

Street Name:	Main St						Walnut Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	-	T	-	R		L	-	T	-	R	
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	0	1	0	0		0	0	1	0	0	

Volume Module:

Base Vol:	10	150	60	30	120	20	10	30	20	30	40	30
Growth Adj:	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
Initial Bse:	11	169	68	34	135	23	11	34	23	34	45	34
Added Vol:	18	67	13	28	61	11	11	84	17	13	88	29
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	29	236	81	62	196	34	22	118	40	47	133	63
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	29	236	81	62	196	34	22	118	40	47	133	63
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	29	236	81	62	196	34	22	118	40	47	133	63
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	29	236	81	62	196	34	22	118	40	47	133	63

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.08	0.69	0.23	0.21	0.67	0.12	0.12	0.66	0.22	0.19	0.55	0.26
Final Sat.:	53	426	146	127	404	69	67	355	119	110	312	147

Capacity Analysis Module:

Vol/Sat:	0.55	0.55	0.55	0.49	0.49	0.49	0.33	0.33	0.33	0.43	0.43	0.43
Crit Moves:	****			****			****			****		
Delay/Veh:	14.3	14.3	14.3	13.3	13.3	13.3	11.4	11.4	11.4	12.5	12.5	12.5
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	14.3	14.3	14.3	13.3	13.3	13.3	11.4	11.4	11.4	12.5	12.5	12.5
LOS by Move:	B	B	B	B	B	B	B	B	B	B	B	B
ApproachDel:	14.3			13.3			11.4			12.5		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	14.3			13.3			11.4			12.5		
LOS by Appr:	B			B			B			B		
AllWayAvgQ:	1.0	1.0	1.0	0.8	0.8	0.8	0.4	0.4	0.4	0.6	0.6	0.6

\*\*\*\*\*

Note: Queue reported is the number of cars per lane.

Cumulative (2020) + ProjectWed Apr 8, 2009 13:47:02

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Huntington Beach Traffic Impact Analysis  
Cumulative Conditions (Year 2020) with Project PM

Level Of Service Detailed Computation Report  
2000 HCM 4-Way Stop Method  
Future Volume Alternative

\*\*\*\*\*  
Intersection #17 Main St / Walnut Ave  
\*\*\*\*\*

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R

Time Period: 0.25 hour

HevVeh:	0%	0%	0%	0%
---------	----	----	----	----

Alpha Value: 0.01

GroupType:	1	1	1	1
P[C1]:	0.23	0.20	0.16	0.18
P[C2]:	0.20	0.23	0.10	0.08
P[C3]:	0.25	0.22	0.31	0.35
P[C4]:	0.27	0.29	0.34	0.32
P[C5]:	0.05	0.06	0.09	0.07
Padj [C1]:	0.017	0.018	0.021	0.020
Padj [C2]:	0.008	0.008	0.012	0.011
Padj [C3]:	-0.004	-0.002	-0.004	-0.006
Padj [C4]:	-0.016	-0.017	-0.020	-0.018
Padj [C5]:	-0.005	-0.006	-0.009	-0.007

Lane:	L1	L1	L1	L1
LaneType:	LEFTTHRURITE	LEFTTHRURITE	LEFTTHRURITE	LEFTTHRURITE
HeadwayAdj:	-0.123	-0.027	-0.107	-0.117
Volume:	346	292	180	243
Capacity:	625	600	542	568
DegOfUtil:	0.52	0.46	0.30	0.39
DepHeadway:	5.46	5.63	5.93	5.80
ServiceTime:	3.5	3.6	3.9	3.8
Delay:	14.3	13.3	11.4	12.5
Queue:	1.0	0.8	0.4	0.6

Approach:	North Bound	South Bound	East Bound	West Bound
ApproachDel:	14.3	13.3	11.4	12.5
Delay Adj:	1.00	1.00	1.00	1.00
ApprAdjDel:	14.3	13.3	11.4	12.5
LOS by Appr:	B	B	B	B
OverallDel:		13.1		
OverallLOS:		B		



Cumulative (2020) + ProjectWed Apr 8, 2009 13:47:02

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Huntington Beach Traffic Impact Analysis  
Cumulative Conditions (Year 2020) with Project PM

Level Of Service Computation Report  
2000 HCM 4-Way Stop Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #18 Main St / Olive Ave  
\*\*\*\*\*

Cycle (sec): 0 Critical Vol./Cap. (X): 0.431  
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 11.5  
Optimal Cycle: 0 Level Of Service: B  
\*\*\*\*\*

Street Name:	Main St						Olive Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Lanes:	0	0	1	0	0	0	0	1	0	0	0	0	1	0	0

Volume Module:	Main St North Bound			Main St South Bound			Olive Ave East Bound			Olive Ave West Bound		
Base Vol:	30	140	30	40	120	30	20	30	30	20	30	40
Growth Adj:	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
Initial Bse:	34	158	34	45	135	34	23	34	34	23	34	45
Added Vol:	23	10	12	11	9	12	11	91	22	12	94	10
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	57	168	46	56	144	46	34	125	56	35	128	55
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	57	168	46	56	144	46	34	125	56	35	128	55
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	57	168	46	56	144	46	34	125	56	35	128	55
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	57	168	46	56	144	46	34	125	56	35	128	55

Saturation Flow Module:	Main St North Bound			Main St South Bound			Olive Ave East Bound			Olive Ave West Bound		
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.21	0.62	0.17	0.23	0.58	0.19	0.16	0.58	0.26	0.16	0.59	0.25
Final Sat.:	132	389	106	141	364	116	95	352	158	96	356	153

Capacity Analysis Module:	Main St North Bound			Main St South Bound			Olive Ave East Bound			Olive Ave West Bound		
Vol/Sat:	0.43	0.43	0.43	0.40	0.40	0.40	0.35	0.35	0.35	0.36	0.36	0.36
Crit Moves:	****			****			****			****		
Delay/Veh:	12.0	12.0	12.0	11.5	11.5	11.5	11.1	11.1	11.1	11.2	11.2	11.2
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	12.0	12.0	12.0	11.5	11.5	11.5	11.1	11.1	11.1	11.2	11.2	11.2
LOS by Move:	B	B	B	B	B	B	B	B	B	B	B	B
ApproachDel:	12.0			11.5			11.1			11.2		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	12.0			11.5			11.1			11.2		
LOS by Appr:	B			B			B			B		
AllWayAvgQ:	0.6	0.6	0.6	0.5	0.5	0.5	0.4	0.4	0.4	0.5	0.5	0.5

Note: Queue reported is the number of cars per lane.



Cumulative (2020) + ProjectWed Apr 8, 2009 13:47:02

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Huntington Beach Traffic Impact Analysis  
Cumulative Conditions (Year 2020) with Project PM

Level Of Service Detailed Computation Report  
2000 HCM 4-Way Stop Method  
Future Volume Alternative

\*\*\*\*\*

Intersection #18 Main St / Olive Ave

\*\*\*\*\*

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Time Period:	0.25 hour			

HevVeh:	0%	0%	0%	0%
---------	----	----	----	----

Alpha Value:	0.01			
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GroupType:	1	1	1	1
P[C1]:	0.28	0.27	0.25	0.25
P[C2]:	0.17	0.18	0.12	0.12
P[C3]:	0.28	0.26	0.32	0.32
P[C4]:	0.23	0.24	0.26	0.25
P[C5]:	0.04	0.04	0.05	0.05
Padj[C1]:	0.016	0.016	0.017	0.017
Padj[C2]:	0.007	0.007	0.009	0.009
Padj[C3]:	-0.005	-0.005	-0.006	-0.006
Padj[C4]:	-0.013	-0.014	-0.015	-0.015
Padj[C5]:	-0.004	-0.004	-0.005	-0.005

Lane:	L1	L1	L1	L1
LaneType:	LEFTTHRURITE	LEFTTHRURITE	LEFTTHRURITE	LEFTTHRURITE
HeadwayAdj:	-0.060	-0.066	-0.125	-0.120
Volume:	270	246	214	217
Capacity:	628	621	605	605
DegOfUtil:	0.40	0.37	0.33	0.33
DepHeadway:	5.37	5.40	5.48	5.47
ServiceTime:	3.4	3.4	3.5	3.5
Delay:	12.0	11.5	11.1	11.2
Queue:	0.6	0.5	0.4	0.5

Approach:	North Bound	South Bound	East Bound	West Bound
ApproachDel:	12.0	11.5	11.1	11.2
Delay Adj:	1.00	1.00	1.00	1.00
ApprAdjDel:	12.0	11.5	11.1	11.2
LOS by Appr:	B	B	B	B
OverallDel:		11.5		
OverallLOS:		B		

Cumulative (2020) + ProjectWed Apr 8, 2009 13:47:02

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Huntington Beach Traffic Impact Analysis  
Cumulative Conditions (Year 2020) with Project PM

Level Of Service Computation Report  
2000 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #19 Main St / 6th St  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.356  
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 13.4  
Optimal Cycle: 22 Level Of Service: B  
\*\*\*\*\*

Street Name:	Main St						6th St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	0	1	0	0	1	0	1	1	0	1

Volume Module:	Main St NB			Main St SB			6th St EB			6th St WB		
Base Vol:	10	150	20	30	160	50	50	70	10	30	70	30
Growth Adj:	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
Initial Bse:	11	169	23	34	180	56	56	79	11	34	79	34
Added Vol:	19	100	5	0	97	112	104	14	20	5	13	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	30	269	28	34	277	168	160	93	31	39	92	34
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	30	269	28	34	277	168	160	93	31	39	92	34
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	30	269	28	34	277	168	160	93	31	39	92	34
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	30	269	28	34	277	168	160	93	31	39	92	34

Saturation Flow Module:	Main St NB			Main St SB			6th St EB			6th St WB		
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.91	0.09	1.00	0.62	0.38	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1700	1542	158	1700	1058	642	1700	1700	1700	1700	1700	1700

Capacity Analysis Module:	Main St NB			Main St SB			6th St EB			6th St WB		
Vol/Sat:	0.02	0.17	0.17	0.02	0.26	0.26	0.09	0.05	0.02	0.02	0.05	0.02
Crit Moves:				****				****				
Green/Cycle:	0.74	0.74	0.74	0.74	0.74	0.74	0.26	0.26	0.26	0.26	0.26	0.26
Volume/Cap:	0.02	0.24	0.24	0.03	0.36	0.36	0.36	0.21	0.07	0.09	0.20	0.08
Delay/Veh:	3.6	4.3	4.3	3.6	4.9	4.9	30.3	28.8	27.6	27.8	28.8	27.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	3.6	4.3	4.3	3.6	4.9	4.9	30.3	28.8	27.6	27.8	28.8	27.7
LOS by Move:	A	A	A	A	A	A	C	C	C	C	C	C
HCM2kAvgQ:	0	3	3	0	5	5	4	2	1	1	2	1

\*\*\*\*\*  
Note: Queue reported is the number of cars per lane.  
\*\*\*\*\*

Cumulative (2020) + ProjectWed Apr 8, 2009 13:47:02

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Huntington Beach Traffic Impact Analysis  
Cumulative Conditions (Year 2020) with Project PM

Level Of Service Computation Report  
2000 HCM 4-Way Stop Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #20 Lake St / 6th St

\*\*\*\*\*

Cycle (sec): 0 Critical Vol./Cap.(X): 0.396

Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 10.9

Optimal Cycle: 0 Level Of Service: B

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Street Name:	Lake St										6th St									
Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Stop Sign					Stop Sign				
Rights:	Include					Include					Include					Include				
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	0	1	0	1	0	1	0	1	0	1	0	0	1	0	1	0	0	1

Volume Module:

Base Vol:	10	130	20	30	120	50	50	60	10	10	70	20
Growth Adj:	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
Initial Bse:	11	146	23	34	135	56	56	68	11	11	79	23
Added Vol:	3	75	0	0	65	15	16	0	4	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	14	221	23	34	200	71	72	68	15	11	79	23
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	14	221	23	34	200	71	72	68	15	11	79	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	14	221	23	34	200	71	72	68	15	11	79	23
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	14	221	23	34	200	71	72	68	15	11	79	23

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.91	0.09	1.00	1.00	1.00	0.52	0.48	1.00	0.12	0.88	1.00
Final Sat.:	558	559	57	534	581	651	274	256	614	67	468	601

Capacity Analysis Module:

Vol/Sat:	0.03	0.40	0.40	0.06	0.34	0.11	0.26	0.26	0.02	0.17	0.17	0.04
Crit Moves:	****			****			****			****		
Delay/Veh:	9.0	11.7	11.7	9.6	11.6	8.6	11.2	11.2	8.3	10.1	10.1	8.4
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.0	11.7	11.7	9.6	11.6	8.6	11.2	11.2	8.3	10.1	10.1	8.4
LOS by Move:	A	B	B	A	B	A	B	B	A	B	B	A
ApproachDel:	11.6			10.7			10.9			9.8		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	11.6			10.7			10.9			9.8		
LOS by Appr:	B			B			B			A		
AllWayAvgQ:	0.0	0.6	0.6	0.1	0.5	0.1	0.3	0.3	0.0	0.2	0.2	0.0

\*\*\*\*\*

Note: Queue reported is the number of cars per lane.

Cumulative (2020) + ProjectWed Apr 8, 2009 13:47:02

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Huntington Beach Traffic Impact Analysis  
Cumulative Conditions (Year 2020) with Project PM

Level Of Service Detailed Computation Report  
2000 HCM 4-Way Stop Method  
Future Volume Alternative

\*\*\*\*\*  
Intersection #20 Lake St / 6th St  
\*\*\*\*\*

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R

Time Period: 0.25 hour

HevVeh:	0%	0%	0%	0%
---------	----	----	----	----

Alpha Value: 0.01

GroupType:	5	6	5	5
P[C1]:	0.34	0.36	0.28	0.25
P[C2]:	0.26	0.24	0.06	0.09
P[C3]:	0.20	0.21	0.40	0.36
P[C4]:	0.18	0.17	0.23	0.26
P[C5]:	0.02	0.02	0.03	0.05
Padj [C1]:	0.013	0.012	0.017	0.018
Padj [C2]:	0.004	0.004	0.009	0.009
Padj [C3]:	-0.004	-0.004	-0.009	-0.007
Padj [C4]:	-0.011	-0.010	-0.014	-0.015
Padj [C5]:	-0.002	-0.002	-0.003	-0.005

Lanes:	L1	L2	L1	L2	L1	L2	L1	L2
LaneType:	LEFT	RTTHRU	LEFT	RITE	RITE	LTTHRU	RITE	LTTHRU
HeadwayAdj:	0.500	-0.065	0.500	-0.700	-0.700	0.258	-0.700	0.063
Volume:	14	244	34	71	15	140	23	90
Capacity:	558	616	534	651	614	531	601	535
DegOfUtil:	0.02	0.38	0.06	0.10	0.02	0.25	0.03	0.16
DepHeadway:	6.18	5.62	6.48	5.28	5.43	6.39	5.51	6.27
ServiceTime:	3.9	3.3	4.2	3.0	3.1	4.1	3.2	4.0
Delay:	9.0	11.7	9.6	8.6	8.3	11.2	8.4	10.1
Queue:	0.0	0.6	0.1	0.1	0.0	0.3	0.0	0.2

Lane:	L3	L3	L3	L3
LaneType:	NOLANE	THRU	NOLANE	NOLANE
HeadwayAdj:	xx.xxx	0.000	xx.xxx	xx.xxx
Volume:	xxxxxxx	200	xxxxxxx	xxxxxxx
Capacity:	xxxxxxx	581	xxxxxxx	xxxxxxx
DegOfUtil:	x.xx	0.33	x.xx	x.xx
DepHeadway:	xx.xx	5.98	xx.xx	xx.xx
ServiceTime:	xx.x	3.7	xx.x	xx.x
Delay:	xxx.x	11.6	xxx.x	xxx.x
Queue:	xxx.x	0.5	xxx.x	xxx.x

Approach:	North Bound	South Bound	East Bound	West Bound
ApproachDel:	11.6	10.7	10.9	9.8
Delay Adj:	1.00	1.00	1.00	1.00

Cumulative (2020) + ProjectWed Apr 8, 2009 13:47:02

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Huntington Beach Traffic Impact Analysis  
Cumulative Conditions (Year 2020) with Project PM

ApprAdjDel:	11.6	10.7	10.9	9.8
LOS by Appr:	B	B	B	A
OverallDel:			10.9	
OverallLOS:			B	

Cumulative (2020) + ProjectWed Apr 8, 2009 13:47:02

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Huntington Beach Traffic Impact Analysis  
Cumulative Conditions (Year 2020) with Project PM

Level Of Service Computation Report  
2000 HCM 4-Way Stop Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #21 Lake St / Orange Ave  
\*\*\*\*\*

Cycle (sec): 0 Critical Vol./Cap.(X): 0.866  
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 23.2  
Optimal Cycle: 0 Level Of Service: C  
\*\*\*\*\*

Street Name:	Lake St						Orange Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Lanes:	0	0	1	0	0	0	0	1	0	0	0	0	1	0	0

Volume Module:	Lake St						Orange Ave					
Base Vol:	20	70	10	70	60	20	20	140	30	20	230	80
Growth Adj:	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
Initial Bse:	23	79	11	79	68	23	23	158	34	23	259	90
Added Vol:	13	11	14	25	10	33	35	113	13	14	115	33
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	36	90	25	104	78	56	58	271	47	37	374	123
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	36	90	25	104	78	56	58	271	47	37	374	123
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	36	90	25	104	78	56	58	271	47	37	374	123
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	36	90	25	104	78	56	58	271	47	37	374	123

Saturation Flow Module:	Lake St						Orange Ave					
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.23	0.60	0.17	0.44	0.33	0.23	0.15	0.73	0.12	0.07	0.70	0.23
Final Sat.:	109	275	77	216	161	116	87	408	71	42	432	142

Capacity Analysis Module:	Lake St						Orange Ave					
Vol/Sat:	0.33	0.33	0.33	0.48	0.48	0.48	0.66	0.66	0.66	0.87	0.87	0.87
Crit Moves:	****			****			****			****		
Delay/Veh:	12.8	12.8	12.8	14.8	14.8	14.8	18.9	18.9	18.9	32.9	32.9	32.9
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	12.8	12.8	12.8	14.8	14.8	14.8	18.9	18.9	18.9	32.9	32.9	32.9
LOS by Move:	B	B	B	B	B	B	C	C	C	D	D	D
ApproachDel:	12.8			14.8			18.9			32.9		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	12.8			14.8			18.9			32.9		
LOS by Appr:	B			B			C			D		
AllWayAvgQ:	0.4	0.4	0.4	0.7	0.7	0.7	1.5	1.5	1.5	4.1	4.1	4.1

Note: Queue reported is the number of cars per lane.



Cumulative (2020) + ProjectWed Apr 8, 2009 13:47:02

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Huntington Beach Traffic Impact Analysis  
Cumulative Conditions (Year 2020) with Project PM

Level Of Service Detailed Computation Report  
2000 HCM 4-Way Stop Method  
Future Volume Alternative

\*\*\*\*\*

Intersection #21 Lake St / Orange Ave

\*\*\*\*\*

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R

Time Period: 0.25 hour

HevVeh:	0%	0%	0%	0%
---------	----	----	----	----

Alpha Value: 0.01

GroupType:	1	1	1	1
P[C1]:	0.03	0.04	0.06	0.15
P[C2]:	0.02	0.02	0.34	0.25
P[C3]:	0.23	0.29	0.07	0.17
P[C4]:	0.48	0.50	0.42	0.35
P[C5]:	0.24	0.16	0.11	0.08
Padj[C1]:	0.029	0.027	0.022	0.020
Padj[C2]:	0.019	0.017	0.009	0.009
Padj[C3]:	0.003	-0.001	0.004	-0.000
Padj[C4]:	-0.026	-0.028	-0.024	-0.020
Padj[C5]:	-0.024	-0.016	-0.011	-0.008

Lane:	L1	L1	L1	L1
LaneType:	LEFTTHRURITE	LEFTTHRURITE	LEFTTHRURITE	LEFTTHRURITE
HeadwayAdj:	-0.053	-0.053	-0.044	-0.125
Volume:	151	237	375	534
Capacity:	460	493	566	617
DegOfUtil:	0.29	0.44	0.63	0.85
DepHeadway:	6.94	6.69	6.07	5.74
ServiceTime:	4.9	4.7	4.1	3.7
Delay:	12.8	14.8	18.9	32.9
Queue:	0.4	0.7	1.5	4.1

Approach:	North Bound	South Bound	East Bound	West Bound
ApproachDel:	12.8	14.8	18.9	32.9
Delay Adj:	1.00	1.00	1.00	1.00
ApprAdjDel:	12.8	14.8	18.9	32.9
LOS by Appr:	B	B	C	D
OverallDel:		23.2		
OverallLOS:		C		

Cumulative (2020) + ProjectWed Apr 8, 2009 13:47:02

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Huntington Beach Traffic Impact Analysis  
Cumulative Conditions (Year 2020) with Project PM

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

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Intersection #22 1st St / Orange Ave & Atlanta Ave

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap. (X): 0.416

Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 21.6

Optimal Cycle: 32 Level Of Service: C

\*\*\*\*\*

Street Name:	1st St			Orange Ave & Atlanta Ave		
Approach:	North Bound			East Bound		
Movement:	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Permitted			Protected		
Rights:	Include			Include		
Min. Green:	0	0	0	0	0	0
Lanes:	0	1	0	0	1	0

Volume Module:

Base Vol:	70	10	190	10	0	0	0	200	70	170	220	10
Growth Adj:	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
Initial Bse:	79	11	214	11	0	0	0	225	79	192	248	11
Added Vol:	71	0	40	0	0	0	0	91	62	33	90	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	150	11	254	11	0	0	0	316	141	225	338	11
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	150	11	254	11	0	0	0	316	141	225	338	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	150	11	254	11	0	0	0	316	141	225	338	11
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	150	11	254	11	0	0	0	316	141	225	338	11

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.93	0.07	1.00	1.00	0.00	0.00	1.00	1.38	0.62	1.00	0.97	0.03
Final Sat.:	1581	119	1700	1700	0	0	1700	2352	1048	1700	1645	55

Capacity Analysis Module:

Vol/Sat:	0.09	0.09	0.15	0.01	0.00	0.00	0.00	0.13	0.13	0.13	0.21	0.21
Crit Moves:	****			****			****			****		
Green/Cycle:	0.36	0.36	0.36	0.36	0.00	0.00	0.00	0.32	0.32	0.32	0.64	0.64
Volume/Cap:	0.26	0.26	0.42	0.02	0.00	0.00	0.00	0.42	0.42	0.42	0.32	0.32
Delay/Veh:	22.9	22.9	24.6	20.7	0.0	0.0	0.0	26.7	26.7	27.4	8.3	8.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	22.9	22.9	24.6	20.7	0.0	0.0	0.0	26.7	26.7	27.4	8.3	8.3
LOS by Move:	C	C	C	C	A	A	A	C	C	C	A	A
HCM2kAvgQ:	4	4	6	0	0	0	0	6	6	6	5	5

\*\*\*\*\*

Note: Queue reported is the number of cars per lane.

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Cumulative (2020) + ProjectWed Apr 8, 2009 13:47:02

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Huntington Beach Traffic Impact Analysis  
Cumulative Conditions (Year 2020) with Project PM

Level Of Service Computation Report  
2000 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #23 Beach Blvd / Atlanta Ave  
\*\*\*\*\*

Cycle (sec): 120 Critical Vol./Cap.(X): 0.432  
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 24.8  
Optimal Cycle: 33 Level Of Service: C  
\*\*\*\*\*

Street Name:	Beach Blvd						Atlanta Ave											
Approach:	North Bound			South Bound			East Bound			West Bound								
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R			
Control:	Permitted						Permitted						Protected					
Rights:	Include						Include						Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Lanes:	0	1	2	1	0	1	0	2	1	0	1	0	2	0	1			

Volume Module:	Beach Blvd						Atlanta Ave					
Base Vol:	80	840	100	270	500	70	80	280	20	50	270	210
Growth Adj:	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
Initial Bse:	90	947	113	304	563	79	90	316	23	56	304	237
Added Vol:	0	199	21	0	191	71	65	115	0	22	109	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	90	1146	134	304	754	150	155	431	23	78	413	237
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	90	1146	134	304	754	150	155	431	23	78	413	237
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	90	1146	134	304	754	150	155	431	23	78	413	237
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	90	1146	134	304	754	150	155	431	23	78	413	237

Saturation Flow Module:	Beach Blvd						Atlanta Ave					
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.26	3.35	0.39	1.00	2.50	0.50	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	448	5689	664	1700	4255	845	1700	3400	1700	1700	3400	1700

Capacity Analysis Module:	Beach Blvd						Atlanta Ave					
Vol/Sat:	0.20	0.20	0.20	0.18	0.18	0.18	0.09	0.13	0.01	0.05	0.12	0.14
Crit Moves:	****						****					
Green/Cycle:	0.47	0.47	0.47	0.47	0.47	0.47	0.21	0.39	0.39	0.14	0.32	0.32
Volume/Cap:	0.43	0.43	0.43	0.38	0.38	0.38	0.43	0.32	0.03	0.32	0.38	0.43
Delay/Veh:	21.5	21.5	21.5	21.1	20.9	20.9	41.9	25.6	22.6	47.0	31.6	32.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	21.5	21.5	21.5	21.1	20.9	20.9	41.9	25.6	22.6	47.0	31.6	32.6
LOS by Move:	C	C	C	C	C	C	D	C	C	D	C	C
HCM2kAvgQ:	8	8	8	7	7	7	5	5	0	3	6	7

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Note: Queue reported is the number of cars per lane.  
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Cumulative (2020) + ProjectWed Apr 8, 2009 13:47:02

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Huntington Beach Traffic Impact Analysis  
Cumulative Conditions (Year 2020) with Project PM

Level Of Service Computation Report  
2000 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #24 Beach Blvd / Pacific View Ave  
\*\*\*\*\*

Cycle (sec): 120 Critical Vol./Cap.(X): 0.347  
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 12.9  
Optimal Cycle: 35 Level Of Service: B  
\*\*\*\*\*

Street Name:	Beach Blvd						Pacific View Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	3	0	0	1	0	0	0	1	0	0

Volume Module:	Beach Blvd			Beach Blvd			Pacific View Ave			Pacific View Ave		
Base Vol:	40	960	0	0	480	60	80	0	40	0	0	0
Growth Adj:	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
Initial Bse:	45	1082	0	0	541	68	90	0	45	0	0	0
Added Vol:	0	119	0	0	120	93	100	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	45	1201	0	0	661	161	190	0	45	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	45	1201	0	0	661	161	190	0	45	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	45	1201	0	0	661	161	190	0	45	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	45	1201	0	0	661	161	190	0	45	0	0	0

Saturation Flow Module:	Beach Blvd			Beach Blvd			Pacific View Ave			Pacific View Ave		
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	3.00	0.00	1.00	2.41	0.59	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1700	5100	0	1700	4103	997	1700	0	1700	0	0	0

Capacity Analysis Module:	Beach Blvd			Beach Blvd			Pacific View Ave			Pacific View Ave		
Vol/Sat:	0.03	0.24	0.00	0.00	0.16	0.16	0.11	0.00	0.03	0.00	0.00	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.10	0.68	0.00	0.00	0.58	0.58	0.32	0.00	0.32	0.00	0.00	0.00
Volume/Cap:	0.28	0.35	0.00	0.00	0.28	0.28	0.35	0.00	0.08	0.00	0.00	0.00
Delay/Veh:	51.3	8.2	0.0	0.0	12.5	12.5	31.4	0.0	28.4	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	51.3	8.2	0.0	0.0	12.5	12.5	31.4	0.0	28.4	0.0	0.0	0.0
LOS by Move:	D	A	A	A	B	B	C	A	C	A	A	A
HCM2kAvgQ:	2	6	0	0	5	5	5	0	1	0	0	0

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Note: Queue reported is the number of cars per lane.  
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